

IN THE SUPREME COURT OF THE STATE OF DELAWARE

**GENERAL MOTORS CORPORATION and
FORD MOTOR COMPANY,**

Defendants Below,
Appellants,

v.

ROLAND LEO GRENIER, SR.,

Plaintiff Below,
Appellee.

Nos. 453,2007 & 578,2007
(consolidated)

Appeal from the Superior Court
of the State of Delaware
in and for New Castle County
C.A. No. 05C-11-257-ASB

REVISED BRIEF OF APPELLANTS
GENERAL MOTORS CORPORATION AND FORD MOTOR COMPANY

Christian J. Singewald (#3542)
White & Williams LLP
824 North Market Street, Suite 902
P.O. Box 709
Wilmington, DE 19899
(302) 654-0424

Eileen Penner
Andrew Tauber
Mayer Brown LLP
1909 K Street, N.W.
Washington, DC 20006
(202) 263-3000

Attorneys for Appellants
General Motors Corporation and Ford Motor Company

Dated: March 18, 2008

Table of Contents

	Page
Nature of Proceedings.....	1
Summary of Argument.....	3
Statement of Facts.....	4
A. Background.....	4
B. Proceedings Below.....	6
1. Pretrial Motions	6
a. Daubert Motion.....	6
b. Motion in Limine to Exclude the Gold Book.....	12
c. Other Pretrial Rulings.....	13
2. Trial	14
3. Evidence Plaintiff Concealed Until After Trial	18
4. Motion for a New Trial	20
Argument.....	21
I. THE TRIAL COURT FAILED TO PERFORM ITS GATEKEEPER FUNCTION UNDER DAUBERT, ALLOWING PLAINTIFF TO PRESENT IRRELEVANT AND UNRELIABLE EXPERT TESTIMONY	21
A. Question Presented.....	21
B. Scope of Review.....	21
C. Merits.....	21
1. The proponent of expert testimony bears the burden of establishing its admissibility	22
2. The only relevant issue is whether friction products cause mesothelioma	23
3. Epidemiology is the most reliable evidence of causation in the toxic tort context	23
4. All reliable epidemiological studies show that exposure to friction products does not increase the risk of contracting mesothelioma	25
5. In the face of overwhelming epidemiologic evidence refuting a connection between friction products and mesothelioma, there is no scientifically reliable basis for asserting that friction products cause mesothelioma	26
6. Allowing Plaintiff to rely on studies relating to chrysotile asbestos was erroneous	29
II. DEFENDANTS ARE ENTITLED TO JUDGMENT AS A MATTER OF LAW BECAUSE PLAINTIFF FAILED TO PROVE GENERAL CAUSATION	32
A. Question Presented.....	32
B. Scope of Review.....	32
C. Merits.....	32

III.	THE CONCEALED AND NEWLY DISCOVERED EVIDENCE COMPRISES UNIQUE SUPPORT FOR DEFENDANTS' ALTERNATIVE CAUSATION DEFENSE THAT ENTITLES DEFENDANTS TO A NEW TRIAL	37
A.	Question Presented.....	37
B.	Scope of Review.....	37
C.	Merits.....	37
1.	Plaintiff's Claims Against H-W And USG Are Unique, Non-Cumulative Evidence That Supports Defendants' Alternative Causation Defense.	38
2.	The Verdict Would Likely Have Been Different Had The Newly Discovered Evidence Been Presented To The Jury	41
3.	Plaintiff Concealed The H-W Claim Until After Trial, Despite Defendants' Due Diligence To Obtain It.	43
IV.	THE TRIAL COURT MADE SEVERAL ERRONEOUS AND HIGHLY PREJUDICIAL EVIDENTIARY RULINGS	46
A.	Questions Presented.....	46
B.	Scope of Review.....	46
C.	Merits.....	46
1.	The Trial Court Committed Prejudicial Error When It Admitted The "Gold Book," Which Is Unreliable Hearsay	46
2.	The Trial Court Committed Prejudicial Error When It Precluded Defendants From Introducing Evidence That Plaintiff Was At An Increased Risk Of Mesothelioma As A Result Of Having Smoked Cigarettes Containing The Most Toxic Form Of Asbestos	51
3.	The Trial Court Committed Prejudicial Error When It Admitted Evidence Of The Total Amount Defendants Have Spent On All Experts--Including Those With No Involvement In This Case--While Defending Themselves Against Asbestos-Related Claims	54
4.	The Trial Court Committed Prejudicial Error By Admitting An Unauthenticated Document As An Admission Against Interest	56
V.	THE TRIAL COURT GAVE AN ERRONEOUS INSTRUCTION THAT LIKELY CAUSED THE JURY TO DISREGARD CRITICAL EVIDENCE	59
A.	Question Presented.....	59
B.	Scope of Review.....	59
C.	Merits.....	59
VI.	PLAINTIFF'S INFLAMMATORY SUMMATION ENTITLES DEFENDANTS TO A NEW TRIAL	61
A.	Questions Presented.....	61
B.	Scope of Review.....	61

C.	Merits.....	61
1.	Plaintiff's Reading During Closing Argument Of A Highly Prejudicial Document Not In Evidence Entitles Defendants To A New Trial	62
2.	Plaintiff's Repeated Reference To The Amount Of Money Spent By Defendants On Experts In Other Cases, As Well As This Case, Entitles Defendants To A New Trial	64
3.	Counsel's Reference To Plaintiff's Family Standing At His Grave Entitles Defendants To A New Trial	66
4.	The Cumulative Effect Of Plaintiff's Inflammatory Statements During Closing Argument Entitles Defendants To A New Trial	67
VII.	THE CUMULATIVE EFFECT OF THE VARIOUS ERRORS ENTITLES DEFENDANTS TO A NEW TRIAL	68
A.	Question Presented.....	68
B.	Scope of Review.....	68
C.	Merits.....	68
	CONCLUSION.....	70

TABLE OF AUTHORITIES

Page

CASES

In re Air Disaster at Lockerbie Scotland on Dec. 21, 1988,
37 F.3d 804 (2d Cir. 1994) 53

Allison v. McGhan Med. Corp., 184 F.3d 1300 (11th Cir. 1999)..... 33

In re Asbestos Litig., 911 A.2d 1176 (Del. Super. 2006)..... passim

Awad v. Merck & Co., 99 F. Supp. 2d 301 (S.D.N.Y. 1999)..... 27

Bonner v. ISP Techs. Inc., 259 F.3d 924 (8th Cir. 2001)..... 32

Bowen v. E.I. DuPont de Nemours & Co., Inc.,
906 A.2d 787 (Del. 2006) 22

In re Breast Implant Litig., 11 F. Supp. 2d 1217
(D. Colo. 1998) 24, 25, 32

Brock v. Merrell Dow Pharm., Inc., 874 F.2d 307 (5th Cir. 1989)..... 24

Burke v. State, 484 A.2d 490 (Del. 1984)..... 54

Burkett-Wood v. Haines, 906 A.2d 756 (Del. 2006)..... 61

Buschlen v. Ford Motor Co., 310 N.W.2d 8 (Mich. App. 1981)..... 66

CFTC v. Wilshire Invest. Mgmt. Corp., 407 F. Supp. 2d 1304
(S.D. Fla. 2005) 49

California v. Green, 399 U.S. 149 (1970)..... 53

Caraker v. Sandoz Pharm. Corp., 188 F. Supp. 2d 1026
(N.D. Ill. 2001) 28

Casey v. Ohio Med. Prods., 877 F. Supp. 1380 (N.D. Cal. 1995)... 24, 34

Chapin v. A & L Parts, Inc., Case No. 03-324775-NP
(Mich. 3d Cir. Ct. May 28, 2004) 28, 29

Chrysler Corp. v. Chaplake Holdings, Ltd., 822 A.2d 1024
(Del. 2003) 59

Clayborne v. United States, 751 A.2d 956 (D.C. 2000)..... 53

Conde v. Velsicol Chem. Corp., 24 F.3d 809 (6th Cir. 1994).. 24, 28, 33

Culver v. Bennett, 588 A.2d 1094 (Del. 1991)..... 60

Cunningham v. McDonald, 689 A.2d 1190 (Del. 1997)..... 22

Daubert v. Merrell Dow Pharm. Inc., 509 U.S. 579 (1993)..... passim

DeAngelis v. Harrison, 628 A.2d 77 (Del. 1993)..... passim

<i>Demby v. State</i> , 695 A.2d 1127 (Del. 1997)	57
<i>In re Diet Drugs</i> , 2001 WL 454586 (E.D. Pa. Feb. 1, 2001)	24, 34
<i>E.I. DuPont de Nemours & Co. v. Florida Evergreen Foliage</i> , 744 A.2d 457 (Del. 1999)	44
<i>Edwards v. Sears, Roebuck & Co.</i> , 512 F.2d 276 (5th Cir. 1975)	66
<i>Eskin v. Camden</i> , 842 A.2d 1222 (Del. 2004)	22, 23
<i>Evans Medical Ltd. v. Amer. Cyanamid Co.</i> , 11 F. Supp. 2d 338 (S.D.N.Y. 1998)	40
<i>Floudiotis v. State</i> , 726 A.2d 1196 (Del. 1999)	56
<i>Gannett Co. v. Kanga</i> , 750 A.2d 1174 (Del. 2000)	51
<i>Gannon v. State</i> , 704 A.2d 272 (Del. 1998)	53
<i>Glastetter v. Novartis Pharm. Corp.</i> , 107 F. Supp. 2d 1015 (E.D. Mo. 2000)	28
<i>Grant v. Bristol-Myers Squibb</i> , 97 F. Supp. 2d 986 (D. Ariz. 2000) ...	27
<i>Grant v. Pharmative, LLC</i> , 452 F. Supp. 2d 903 (D. Neb. 2006)	32
<i>Hall v. Baxter Healthcare</i> , 947 F. Supp. 1387 (D. Or. 1996)	24, 29, 30, 31, 49
<i>Hicks v. State</i> , 913 A.2d 1189 (Del. 2006)	37
<i>Hollander v. Sandoz Pharm. Corp.</i> , 95 F. Supp. 2d 1230 (W.D. Okla. 2000)	24
<i>Hovarth v. Baylor Univ. Med. Center</i> , 704 S.W.2d 866 (Tex. App. 1985)	48
<i>Hunter v. State</i> , 815 A.2d 730 (Del. 2002)	63, 64, 65
<i>Lynch v. Merrell-Nat'l Labs.</i> , 830 F.2d 1190 (1st Cir. 1987)	25, 33
<i>M.G. Bancorporation v. LeBeau</i> , 737 A.2d 513 (Del. 1999)	22
<i>Marsee v. U.S. Tobacco Co.</i> , 639 F. Supp. 466 (W.D. Okla. 1986)	48
<i>Massey-Ferguson, Inc. v. Wells</i> , 421 A.2d 1320 (Del. 1980)	61, 63
<i>McNally v. Eckman</i> , 466 A.2d 363 (Del. 1983)	66
<i>Med. Ctr. of Delaware, Inc. v. Lougheed</i> , 661 A.2d 1055 (Del. 1995)	67
<i>Meister v. Med. Eng'g Corp.</i> , 267 F.3d 1123 (D.C. Cir. 2001)	24, 33, 35

<i>In re Meridia Prods. Liab. Litig.</i> , 328 F. Supp. 2d 791 (N.D. Ohio 2004)	32
<i>Michael v. State</i> , 529 A.2d 752 (Del. 1987)	68
<i>Minner v. Am. Mort. & Guar. Co.</i> , 791 A.2d 826 (Del. Super. 2000)	22
<i>Murphy v. State</i> , 4 S.W.3d 926 (Tex. Crim. App. 1999)	53
<i>Norris v. Baxter Healthcare Corp.</i> , 397 F.3d 878 (10th Cir. 2005)	<i>passim</i>
<i>In re Paoli R.R. Yard PCB Litig.</i> , 35 F.3d 717 (3d Cir. 1994)	30
<i>Pozefsky v. Baxter Healthcare Corp.</i> , 2001 WL 967608 (N.D.N.Y. Aug. 16, 2001)	25, 27
<i>Price v. Blood Bank of Delaware, Inc.</i> , 790 A.2d 1203 (Del. 2002)	23
<i>Raynor v. Merrell Pharm., Inc.</i> , 104 F.3d 1371 (D.C. Cir. 1997)	26, 33
<i>In re Rezulin Prods. Liab. Litig.</i> , 309 F. Supp. 2d 531 (S.D.N.Y. 2004)	50
<i>In re Rezulin Prods. Liab. Litig.</i> , 369 F. Supp. 2d 398 (S.D.N.Y. 2005)	32
<i>Richardson v. Richardson-Merrell, Inc.</i> , 857 F.2d 823 (D.C. Cir. 1988)	36
<i>Rider v. Sandoz Pharm. Corp.</i> , 295 F.3d 1194 (11th Cir. 2002)	24
<i>Robelen Piano Co. v. DiFonzo</i> , 169 A.2d 240 (Del. 1961)	68, 69
<i>Savage v. Union Pac. R. Co.</i> , 67 F. Supp. 2d 1021 (E.D. Ark. 1999)	30
<i>Siharath v. Sandoz Pharm. Corp.</i> , 131 F. Supp. 2d 1347 (N.D. Ga. 2001)	<i>passim</i>
<i>Soldo v. Sandoz Pharm. Corp.</i> , 244 F. Supp. 2d 434 (W.D. Pa. 2003)	25
<i>Spencer v. Wal-Mart Stores East, LP</i> , 930 A.2d 881 (Del. 2007)	21, 22, 46
<i>State v. Brown</i> , 2007 WL 1152689 (Del. Super. Apr. 17, 2007)	67
<i>State v. Gillard</i> , 533 N.E.2d 272 (Ohio 1988)	52
<i>State v. McGuire</i> , 686 N.E.2d 1112 (Ohio 1997)	52

<i>State v. Savage</i> , 2002 WL 187510 (Del. Super. Jan. 25, 2002)	67
<i>Trump v. State</i> , 753 A.2d 963 (Del. 2000)	67
<i>United States v. Katsougrakis</i> , 715 F.2d 769 (2d Cir. 1983)	53
<i>United States v. Mackey</i> , 117 F.3d 24 (1st Cir. 1997)	49
<i>Wetherill v. Univ. of Chicago</i> , 518 F. Supp. 1387 (N.D. Ill. 1981)	48
<i>Whittaker v. Houston</i> , 888 A.2d 219 (Del. 2005)	32
<i>Zicherman v. Korean Air Lines Co.</i> , 516 U.S. 217 (1996)	53
STATUTES, REGULATIONS, AND RULES	
15 U.S.C. § 2653	48
29 C.F.R. § 1910.1001(b)	6
Asbestos, Manufacture, Importation, Processing and Distribution Prohibitions, 58 Fed. Reg. 58964 (Nov. 5, 1993)	5, 48
Del. R. Evid. 201(b)	52
Del. R. Evid. 402	55
Del. R. Evid. 702	22, 30
Del. R. Evid. 703	49, 50, 51
Del. R. Evid. 803(8)	48, 49
Del. R. Evid. 803(17)	52
Del. R. Evid. 803(18)	48, 49
Del. R. Evid. 901	57
Del. R. Evid. 902	57, 58
Fed. R. Civ. P. 11(b)	18
Fed. R. Evid. 902 (9th ed. 2006)	58
MISCELLANEOUS	
1 McCormick on Evidence § 29 (6th ed. 2006)	53
5 Stephen A. Saltzburg, et al., Federal Rules of Evidence Manual § 902.02[4] (9th ed. 2006)	58
29A Am. Jur. 2d Evidence § 1192	58

A. Agudo, et al., <i>Occupation and Risk of Malignant Pleural Mesothelioma: A Case-Control Study in Spain</i> , 37 <i>Am. J. Ind. Med.</i> 159 (2000)	6
K.J. Butnor, et al., <i>Exposure to Brake Dust and Malignant Mesothelioma: A Study of 10 Cases with Mineral Fiber Analyses</i> , 47 <i>Ann. Occup. Hygiene</i> 325, 328 (2003)	5
V.J. Castrop, <i>Recognition and Control of Fume and Dust Exposure</i> , in 5 <i>Transactions: 35th National Safety Congress</i> (1947)	13, 14, 57, 58
V.J. Castrop, <i>Fume and Dust Exposure</i> , in 57 <i>National Safety News</i> 20 (1948)	56, 57, 58
D. Coggon, et al., <i>Differences in Occupational Mortality from Pleural Cancer, Peritoneal Cancer, and Asbestosis</i> , 52 <i>Occup. & Env'tl. Med.</i> 775 (1995)	6
[Definitive] Uniform Glossary of Defined Terms for [DII] Plan Documents	18
DII Industries, LLC Asbestos PI Trust Second Amended Trust Distribution Procedures	18, 19
M. Goodman, et al., <i>Mesothelioma and Lung Cancer Among Motor Vehicle Mechanics: A Meta-Analysis</i> , 48 <i>Ann. Occup. Hygiene</i> 309 (2004)	4, 7
P. Gustavsson, et al., <i>Lung Cancer and Exposure to Diesel Exhaust Among Bus Garage Workers</i> , 16 <i>Scand. J. Work Env't & Health</i> 348 (1990)	6
E.S. Hansen, <i>Mortality of Auto Mechanics: A Ten-Year Follow-Up</i> , 15 <i>Scand. J. Work Env't & Health</i> 43 (1989)	6
P.A. Hessel, et al., <i>Mesothelioma Among Brake Mechanics: An Expanded Analysis of a Case-Control Study</i> , 24 <i>Risk Anal.</i> 547 (2004)	7
J.T. Hodgson, et al., <i>Mesothelioma Mortality in Britain: Patterns By Birth Cohort and Occupation</i> , 41 <i>Ann. Occup. Hygiene</i> 129 (1997)	7
B. Jarvholm & J. Brisman, <i>Asbestos Associated Tumours in Car Mechanics</i> , 45 <i>Br. J. Ind. Med.</i> 645 (1988)	7
A. Langer, <i>Reduction of the Biological Potential of Chrysotile Asbestos Arising from Conditions of Service on Brake Pads</i> , 38 <i>Reg. Toxicology & Pharmacology</i> 71 (2002)	5
R.A. Lemen, <i>Asbestos in Brakes: Exposure and Risk of Disease</i> , 45 <i>Am. J. Indus. Med.</i> 229 (2004)	8
J.L. Levin, et al., <i>Asbestosis and Small Cell Lung Cancer in a Clutch Fabricator</i> , 56 <i>Occup. & Env'tl. Med.</i> 602 (1995)	10

J.L. Levin, et al., <i>Environmental Sample Correlation With Clinical and Historical Data in a Friction Product Exposure</i> , 15 <i>Inhalation Toxicology</i> 639 (2003)	10
W.E. Longo, et al., <i>Crocidolite Asbestos Fibers in Smoke from Original Kent Cigarettes</i> , 55 <i>Cancer Research</i> 2232 (1995)	15, 51, 52
A.D. McDonald & J.C. McDonald, <i>Malignant Mesothelioma in North America</i> , 46 <i>Cancer</i> 1650 (1980)	7, 49
A.D. McDonald, et al., <i>Epidemiology of Primary Malignant Mesothelial Tumors in Canada</i> , 26 <i>Cancer</i> 914 (1970)	49
D.M. McElvenny, et al., <i>Mesothelioma Mortality in Great Britain from 1968 to 2001</i> , 55 <i>Occup. Med.</i> 79 (2005)	7
J.H. Olsen & O.M. Jensen, <i>Occupation and Risk of Cancer in Denmark: An Analysis of 93,810 Cancer Cases, 1970-1979</i> , 13 <i>Scand. J. Work Env't & Health</i> 1 (1987)	7
R. Spirtas, et al., <i>Malignant Mesothelioma: Attributable Risk of Asbestos Exposure</i> , 51 <i>Occup. & Env'tl. Med.</i> 804 (1994)	7
R. Spirtas, et al., <i>Mesothelioma Risk Related to Occupational or Other Asbestos Exposure: Preliminary Results from a Case-Control Study</i> , 122 <i>Am. J. Epidemiology</i> 518 (1985)	7
T.A. Sporn & V.L. Roggli, <i>Mesothelioma, in Pathology of Asbestos-Associated Diseases</i> 104, 108 (V.L. Roggli, et al., eds. 2d ed. 2004)	6
Y. Suzuki & S.R. Yuen, <i>Asbestos Tissue Burden Study on Human Malignant Mesothelioma</i> , 39 <i>Indus. Health</i> 150, (2001)	35
K. Teschke, et al., <i>Mesothelioma Surveillance to Locate Sources of Exposure to Asbestos</i> , 88 <i>Can. J. Pub. Health</i> 163 (1997)	7
M.J. Teta, et al., <i>Mesothelioma in Connecticut, 1955-1977: Occupational & Geographic Associations</i> , 25 <i>J. Occup. Med.</i> 749 (1983)	7
United States Gypsum Asbestos Personal Injury Settlement Trust Distribution Procedures	18, 19
R. Valentine, et al., <i>Thermal Modification of Chrysotile Asbestos: Evidence for Decreased Cytotoxicity</i> , 51 <i>Env'tl. Health Perspectives</i> 357 (1983)	5
F.W. Weir & L.B. Meraz, <i>Morphological Characteristics of Asbestos Fibers Released During Grinding and Drilling of Friction Products</i> , 16 <i>Applied Occ. & Env'tl. Hygiene</i> 1147 (2001)	5
H.J. Weitowitz & K. Rödelberger, <i>Mesothelioma Among Car Mechanics?</i> , 38 <i>Ann. Occup. Hygiene</i> 635 (1994)	7

Nature of Proceedings

This is an appeal from a jury verdict holding appellants General Motors Corporation and Ford Motor Company ("GM" and "Ford" respectively, and "Defendants" collectively) liable to plaintiff Roland Grenier, Sr. ("Grenier" or "Plaintiff"). Grenier alleges that he contracted mesothelioma, a form of cancer, as a result of his exposure to the Defendants' brakes and other friction products.¹

This case is part of the coordinated asbestos litigation supervised by Judge Slights. Prior to trial, Judge Slights issued an order--made binding on all parties to the coordinated asbestos litigation--denying a *Daubert* motion to exclude expert testimony that friction products cause mesothelioma. In a separate pretrial ruling, made in another case, Judge Slights denied a motion *in limine* to exclude the so-called "Gold Book," a pamphlet issued by the EPA. Judge Johnston, who presided over the trial leading to this appeal, adopted Judge Slights' pretrial rulings as her own. Defendants appeal from both of Judge Slights' rulings.

At trial, Defendants' primary defense, supported by extensive epidemiological evidence, was that friction products do not cause mesothelioma and that Plaintiff's disease is, therefore, most likely the result of his exposure to non-friction asbestos products. Plaintiff downplayed his exposure to non-friction asbestos products and specifically told the jury that he had provided the Defendants with all evidence of such exposure. The jury found for Plaintiff and awarded him \$2,000,000.

Defendants moved for a new trial on various grounds. During post-trial briefing, Plaintiff disclosed previously concealed evidence regarding the extent and significance of his exposure to non-friction

¹ Friction products are items, such as brake shoes and clutch pads, that are subjected to significant friction during use.

asbestos products. Specifically, after the trial concluded, Plaintiff disclosed for the first time claims that he had filed against other companies in which he sought compensation for having contracted mesothelioma as a result of his exposure to their non-friction asbestos products. Despite Plaintiff's admitted violation of his discovery obligations and of an order by Judge Slight specifically requiring disclosure of such claims, Judge Johnston denied Defendants' motion for a new trial. This appeal followed.

Summary of Argument

1. The trial court failed to perform its gatekeeper function under *Daubert*, allowing Plaintiff to present unreliable and irrelevant expert testimony.

2. Defendants are entitled to judgment as a matter of law because Plaintiff failed to present evidence sufficient to prove general causation.

3. Newly discovered evidence, which Plaintiff concealed, directly supports Defendants' alternative causation defense and entitles Defendants to a new trial.

4. The trial court committed reversible error when it: (i) admitted, and allowed reference to, the EPA "Gold Book," which is unreliable hearsay; (ii) precluded Defendants from cross-examining Plaintiff's experts about the likelihood that Plaintiff's mesothelioma was caused by smoking cigarettes that contained the most toxic form of asbestos; (iii) admitted evidence of how much Defendants paid experts who had no involvement in this case; and (iv) admitted an unauthenticated document as an admission against interest.

5. The trial court gave an erroneous jury instruction that likely caused the jury to disregard critical scientific evidence.

6. Defendants are entitled to a new trial due to Plaintiff's inflammatory closing argument, during which Plaintiff, over objection: (i) read a highly prejudicial document that was not in evidence; (ii) repeatedly referred to the amount of money Defendants paid experts, including those who had no involvement in this case; and, (iii) invoked the image of Plaintiff's family standing at his grave.

7. The cumulative effect of the various errors entitles Defendants to a new trial.

Statement of Facts

Plaintiff has mesothelioma, a form of cancer often associated with asbestos. Although Plaintiff was exposed to a large variety of asbestos-containing products in various work and non-work contexts--including smoking asbestos-laden cigarettes and working with asbestos-containing insulation--he claims that his mesothelioma was caused by his exposure while working as an auto mechanic to Defendants' brakes and clutches, which contain a particular type of refined asbestos. But all reliable epidemiological studies have shown that working with such friction products as an auto mechanic does not cause mesothelioma.

A. Background

There are three types of commercially used asbestos: crocidolite, amosite, and chrysotile. Each has a different physical structure. Crocidolite and amosite are forms of amphibole asbestos, which is characterized by stiff, straight fibers. Chrysotile fibers, by contrast, are flexible and serpentine. Friction products, at issue here, contain chrysotile.² Amphiboles--used in insulation and other non-friction products--are far more toxic than chrysotile. Precise estimates vary, but according to one study amosite is 100 times and crocidolite 500 times more toxic than chrysotile.³

No one disputes that particular forms of asbestos can, under certain conditions, cause mesothelioma. Epidemiological studies have shown that people who work in occupations with prolonged exposures to high levels of non-friction asbestos products--such as miners, insulators, and shipyard workers--suffer significantly higher rates of

² See M. Goodman, et al., *Mesothelioma and Lung Cancer Among Motor Vehicle Mechanics: A Meta-Analysis*, 48 Ann. Occup. Hygiene 309, 309-10 (2004) (Defendants' *Daubert* Ex. ("DDX") 112; A1061-A1078).

³ See 2/21/07 am Tr. 74:18-75:10 (A643-A644); see also 10/18/05 pm Tr. 43:13-44:11 (A465-A466).

mesothelioma than other people. At the same time, however, **every** reliable epidemiological study to have examined the question has determined that auto mechanics, despite their exposure to asbestos-containing friction products, are **not** at increased risk of mesothelioma. See n.12 *infra*.⁴

There are several possible reasons why auto mechanics, who are exposed to friction products such as brakes, are not at increased risk of mesothelioma. First, as noted above, chrysotile asbestos, the type used in friction products, has been shown to be far less toxic than amphibole asbestos.⁵ Second, the heating and milling involved in manufacturing friction products alter chrysotile's properties in a manner that may reduce its biological activity if inhaled.⁶ Third, when used in friction products, the chrysotile is embedded in a resin matrix, which makes the fibers less prone to release and respiration.⁷ Fourth, the high heat to which friction products are subjected during use converts chrysotile into forsterite, a non-toxic substance; as a result, more than 99 percent of the residual brake dust to which auto mechanics are exposed consists of forsterite rather than chrysotile.⁸

⁴ Notably, although it banned other asbestos-containing products, the EPA decided **not** to ban friction products. See *Asbestos, Manufacture, Importation, Processing and Distribution Prohibitions*, 58 Fed. Reg. 58964, 58966 (Nov. 5, 1993).

⁵ See 2/21/07 am Tr. 74:18-75:10 (A643-A644).

⁶ See A. Langer, *Reduction of the Biological Potential of Chrysotile Asbestos Arising from Conditions of Service on Brake Pads*, 38 Reg. Toxicology & Pharmacology 71, 73-75 (2002) (Plaintiffs' Daubert Ex. (PDX) 252; A1116-A1122); R. Valentine, et al., *Thermal Modification of Chrysotile Asbestos: Evidence for Decreased Cytotoxicity*, 51 Env'tl. Health Perspectives 357 (1983) (DDX 357; A1350-A1361).

⁷ See F.W. Weir & L.B. Meraz, *Morphological Characteristics of Asbestos Fibers Released During Grinding and Drilling of Friction Products*, 16 Applied Occ. & Env'tl. Hygiene 1147, 1149 (2001) (PDX 344; A1362-A1364).

⁸ See K.J. Butnor, et al., *Exposure to Brake Dust and Malignant Mesothelioma: A Study of 10 Cases with Mineral Fiber Analyses*, 47 Ann. Occup. Hygiene 325, 328 (2003) (PDX 178; A1011-A1018); 10/19/05 am Tr. 108:11-111:4 (A498-A501). Because it is less than 1% asbestos, brake

Fifth, that same heat alters the surface characteristics of the remaining chrysotile fibers, possibly rendering them less potent.⁹ Sixth, the relatively few remaining chrysotile fibers tend to be shorter than 5 microns, a size that has been shown to be both more readily expunged from the lung and possibly beneath the reaction threshold.¹⁰ Finally, every study conducted on the issue has found auto mechanics' time-weighted average exposure to asbestos to be within contemporaneous regulatory limits.¹¹

B. Proceedings Below

1. Pretrial Motions

a. *Daubert* Motion

Prior to trial, Defendants joined in a *Daubert* motion to preclude Plaintiff from introducing expert testimony that mesothelioma can be caused by friction products. See Master Asbestos File 77C-ASB-2 (Del. Super.), Dkt. Nos. 2264 & 2265. Despite the fact that **every** reliable epidemiological study to have examined the issue has concluded that work as an auto mechanic does **not** increase a person's risk of contracting mesothelioma,¹² Judge Slights, the judge overseeing all

dust is not considered to be an asbestos-containing product under OSHA regulations. See 29 C.F.R. § 1910.1001(b).

⁹ See 10/19/05 am Tr. 119:2-120:9 (A506-A507); see also PDX 252, at 75-76 (A1120-A1121).

¹⁰ See Butnor, *Exposure to Brake Dust and Malignant Mesothelioma*, 47 Ann. Occup. Hygiene at 328 (A1014); T.A. Sporn & V.L. Roggli, *Mesothelioma*, in *Pathology of Asbestos-Associated Diseases* 104, 108 (V.L. Roggli, et al., eds. 2d ed. 2004) (PDX 304; A1293); PDX 178, at 328 (A1013); 10/17/05 pm Tr. 80:9-81:14 (A456-A457). Notably, structures shorter than 5 microns are not considered to be asbestos fibers under OSHA regulations. See 29 C.F.R. § 1910.1001(b).

¹¹ 2/26/07 am Tr. 70:6-76:22, 113:12-117:18 (A676-A682, A683-A687).

¹² See A. Agudo, et al., *Occupation and Risk of Malignant Pleural Mesothelioma: A Case-Control Study in Spain*, 37 Am. J. Ind. Med. 159 (2000) (DDX 3; A1001-A1010); D. Coggon, et al., *Differences in Occupational Mortality from Pleural Cancer, Peritoneal Cancer, and Asbestosis*, 52 Occup. & Envtl. Med. 775 (1995) (DDX 60; A1041-A1043); P. Gustavsson, et al., *Lung Cancer and Exposure to Diesel Exhaust Among Bus Garage Workers*, 16 Scand. J. Work Env't & Health 348 (1990) (DDX 118; A1079-A1086); E.S. Hansen, *Mortality of Auto Mechanics: A*

asbestos litigation in Delaware, denied the motion. See *In re Asbestos Litig.*, 911 A.2d 1176 (Del. Super. 2006) (A408-A441).

Disregarding his own recognition that plaintiffs like Grenier "must establish that their experts can reliably conclude that exposure to **friction products** increases the risk of contracting an asbestos-related disease," Judge Slights, having found that friction products are indistinguishable from raw chrysotile, allowed plaintiffs "to rely on the body of scientific data that has been developed regarding the link between exposure to **unrefined chrysotile** and an increased risk to develop mesothelioma." *Id.* at 1202-03 (emphases added) (A432-A433). Although plaintiffs offered **no** epidemiological evidence that exposure to **friction products** increases the risk of contracting mesothelioma, Judge Slights nonetheless allowed their experts to testify at trial that friction products cause mesothelioma, holding that "Plaintiffs

Ten-Year Follow-Up, 15 Scand. J. Work Env't & Health 43 (1989) (DDX 123; A1087-A1090); P.A. Hessel, et al., *Mesothelioma Among Brake Mechanics: An Expanded Analysis of a Case-Control Study*, 24 Risk Anal. 547 (2004) (DDX 133; A1091-A1096); J.T. Hodgson, et al., *Mesothelioma Mortality in Britain: Patterns By Birth Cohort and Occupation*, 41 Ann. Occup. Hygiene 129 (1997) (DDX 144; A1097-A1111); B. Jarvholm & J. Brisman, *Asbestos Associated Tumours in Car Mechanics*, 45 Br. J. Ind. Med. 645 (1988) (DDX 167; A1112-A1115); A.D. McDonald & J.C. McDonald, *Malignant Mesothelioma in North America*, 46 Cancer 1650 (1980) (DDX 209; A1151-A1159); D.M. McElvenny, et al., *Mesothelioma Mortality in Great Britain from 1968 to 2001*, 55 Occup. Med. 79 (2005) (DDX 219; A1160-A1184); S. Milham & E. Ossiander, *Occupational Mortality in Washington State 1950-1999* (2001); J.H. Olsen & O.M. Jensen, *Occupation and Risk of Cancer in Denmark: An Analysis of 93,810 Cancer Cases, 1970-1979*, 13 Scand. J. Work Env't & Health 1 (1987) (DDX 255; A1185-A1274); R. Spirtas, et al., *Mesothelioma Risk Related to Occupational or Other Asbestos Exposure: Preliminary Results from a Case-Control Study*, 122 Am. J. Epidemiology 518 (1985) (DDX 332; A1283-A1285); R. Spirtas, et al., *Malignant Mesothelioma: Attributable Risk of Asbestos Exposure*, 51 Occup. & Env'tl. Med. 804 (1994) (DDX 333; A1275-A1281); K. Teschke, et al., *Mesothelioma Surveillance to Locate Sources of Exposure to Asbestos*, 88 Can. J. Pub. Health 163 (1997) (DDX 349; A1336-A1341); M.J. Teta, et al., *Mesothelioma in Connecticut, 1955-1977: Occupational & Geographic Associations*, 25 J. Occup. Med. 749 (1983) (DDX 351; A1342-A1349); H.J. Weitowitz & K. Rödelsperger, *Mesothelioma Among Car Mechanics?*, 38 Ann. Occup. Hygiene 635 (1994) (DDX 374; A1365-A1368); see also Goodman, *Mesothelioma and Lung Cancer Among Motor Vehicle Mechanics*, 48 Ann. Occup. Hygiene 309 (2004) (DDX 112; A1061-A1078).

need not support their general causation case with epidemiological evidence." *Id.* at 1209 (A439-A440).¹³

Judge Slight's conclusion that friction products are indistinguishable from raw chrysotile rests on the testimony of Ronald Dodson, a microscopist. Dodson, like every other expert to testify, conceded that the mechanism by which asbestos causes mesothelioma is unknown. See 10/17/05 pm Tr. 49:5-15, 52:1-4, 54:3-14 (A448, A449, A450); see also, e.g., 10/18/05 am Tr. 66:1-7 (A462); 10/19/05 pm Tr. 86:10-13 (A515); 2/15/07 pm Tr. 60:14-15 (A611); 2/16/07 am Tr. 20:23-21:3 (A616-A617). Dodson specifically acknowledged, however, that surface charge and surface chemistry are two (of the many) factors that might affect whether an asbestos fiber is carcinogenic. See 10/17/05 pm Tr. 57:2-7 (A451); see also 10/19/05 am Tr. 117:19-118:7 (A504-A505) (Lemen acknowledging study concluding that "the surface charge characteristics in the electronic state of asbestos fibers may be responsible for its biologic activity").¹⁴

Referring to two studies in which Dodson compared "new and worn friction fibers with unrefined chrysotile under an electron microscope," the court found that Dodson "considered the surface characteristics of the fibers and concluded that there is no basis to distinguish the surface characteristics of friction fibers from those

¹³ Judge Slight found that "the sufficiency of the epidemiological evidence is hotly contested by competent scientists on both sides." 911 A.2d at 1207 (A437-A438). But all that plaintiffs' epidemiological expert, Richard Lemen, contested was whether the many epidemiological studies that have found that there is no increased risk of mesothelioma from exposure to friction products are absolutely conclusive. Caviling that each suffers from some limitation or other, he characterized them as "equivocal." See R.A. Lemen, *Asbestos in Brakes: Exposure and Risk of Disease*, 45 Am. J. Indus. Med. 229, 233-34 (2004) (PDX 1; A1123-A1131); 10/18/05 pm Tr. 96:14-97:5 (A468-A469). However, Lemen conceded that all studies--including those upon which he relied--suffer from some limitation or other (see 10/19/05 am Tr. 123:6-14 (A510)) and would thus, by his lights, be "equivocal."

¹⁴ "Surface charge" refers to the electric charge on the surface of a substance. "Surface chemistry" refers to a substance's propensity to surface reactions (as opposed to reactions in solution).

of other chrysotile fibers." 911 A.2d at 1203 & n.161 (A433-A434) (citing Plaintiffs' *Daubert* Exs. ("PDX") 257 & 258 (A1132-A1135 & A1136-A1144)). In support of that finding, the court cited: (i) Dodson's testimony that the fibers he obtained from used clutch plates were "identifiable as chrysotile fibers"; (ii) Dodson's testimony that the fibers he obtained from unused brake pads were "evident morphologically as unaltered tubes"; and (iii) Dodson's purported testimony that, in the court's paraphrase, "he would have detected changes in surface characteristics [of the samples] under TEM microscopy." *Id.* n.167 (A434) (citing 10/17/05 pm Tr. 29, 36-37, 59 (A444,A446-A447, A452)).¹⁵

The court's finding, however, is not supported by the testimony cited, and is in fact directly contradicted by the record. The fact that the fibers Dodson "inspected were 'identifiable as chrysotile fibers'" is as unsurprising as it is irrelevant. No one disputes that friction products contain chrysotile fibers, and that some of those fibers survive the products' manufacture and use. Moreover, the mere fact that the friction fibers were identifiable as chrysotile fibers does not mean that their surface characteristics were indistinguishable from those of unrefined chrysotile fibers. Similarly, the fact that the fibers Dodson obtained from unused brake pads were "evident morphologically as unaltered tubes," in addition to saying nothing about the fibers associated with used friction products, says nothing about the fibers' surface characteristics. Morphology refers to the fibers' physical structure (*i.e.*, their shape and size), not their surface charge or surface chemistry.¹⁶ Nor does Dodson's testimony support the court's finding that Dodson "would have

¹⁵ "TEM" stands for transmission electron microscopy.

¹⁶ See 10/19/05 pm Tr. 33:16-23 (A513) (Lemen distinguishing "morphology" from "surface characteristics such as surface charge or surface chemistry").

detected changes in surface characteristics [of the friction fiber samples] under TEM microscopy." The testimony that the court cites in support of that finding referred to fibers obtained from tissue samples, not to fibers obtained from friction products. As Dodson acknowledged, it is impossible to determine whether a fiber found in a tissue sample came from a friction product or some other source. See 10/17/05 pm Tr. 64:4-20 (A455). More importantly, Dodson's actual testimony was that TEM microscopy "allows only for the detection of *some* alterations in *some* surface characteristics." 10/17/05 pm Tr. 59:16-16 (A452) (emphasis added); see also 10/19/05 pm Tr. 33:16-23 (A513) (Lemen opining that TEM microscopy would not allow researchers to measure surface charge or surface chemistry). Moreover, even if (contrary to fact) TEM microscopy could in theory detect all relevant surface characteristics, neither of the studies that Dodson conducted on friction products contains any analysis of surface charge or surface chemistry. Cf. J.L. Levin, et al., *Asbestosis and Small Cell Lung Cancer in a Clutch Fabricator*, 56 *Occup. & Env'tl. Med.* 602 (1995) (PDX 257; A1132-A1135); J.L. Levin, et al., *Environmental Sample Correlation With Clinical and Historical Data in a Friction Product Exposure*, 15 *Inhalation Toxicology* 639 (2003) (PDX 258; A1136-A1144). Indeed, Dodson specifically acknowledged that his brake study "didn't try to analyze the surface charge or the surface chemistry" of the fibers he found. 10/17/05 pm Tr. 96:9-13 (A458). Thus, the court's key factual finding--that Dodson "considered the surface characteristics of the fibers and concluded that there is no basis to distinguish the surface characteristics of friction fibers from those of other chrysotile fibers" (911 A.2d at 1203 (A433-A434))--is unsupported by and contrary to the evidentiary record.

Yet, based on that finding, the court concluded that Dodson

"provided a bridge . . . between the scientific data regarding the association between unrefined chrysotile and asbestos-related diseases and the association between friction products and asbestos-related disease." 911 A.2d at 1204 (A434-A435). Having so concluded, the court then held that other experts--including Richard Lemen, who testified for Plaintiff at trial--could rely on studies relating to the effects of unrefined chrysotile asbestos to opine that friction products cause mesothelioma. See *id.* at 1206 (A436-A437).

Lemen admitted that **no** epidemiological study has shown an increased risk of mesothelioma from exposure to friction products. See 10/19/05 am Tr. 125:19-23 (A511); 2/15/07 am Tr. 100:9-101:5 (A587-A588); 2/16/07 am Tr. 70:11-14 (A618); *cf.* n.12 *supra*. Thus, rather than rely on epidemiological evidence relating to friction products in particular, Lemen based his opinion that friction products cause mesothelioma on studies concerning chrysotile fibers generally. Indeed, Lemen acknowledged that none of the animal experiments and human cell studies on which he heavily relied was conducted with friction fibers. See 10/19/05 am Tr. 121:22-123:5 (A508-A510). In fact, Lemen conceded that his opinion rests entirely on the **assumption** that the fibers associated with friction products "have the same . . . biological propensities as chrysotile fibers that were studied in other areas." 10/19/05 am Tr. 112:19-113:9 (A502-A503). Despite these admissions, Judge Slights found that "Lemen's reliance upon the substantial scientific evidence of the association between chrysotile and asbestos disease is sufficiently reliable to withstand scrutiny under *Daubert*." 911 A.2d at 1205 (A435-A436).¹⁷

¹⁷ Judge Slights reached the same conclusion with respect to Arthur Frank and Samuel Hammar, both of whom testified at the *Daubert* hearing but neither of whom testified at trial. See 911 A.2d at 1205-06 (A435-A437). Frank acknowledged that his opinion that friction products can cause mesothelioma was an "extrapolation" from what is

b. Motion in Limine to Exclude the Gold Book

In another pretrial ruling, Judge Slight denied a motion in limine to preclude introduction of and any reference to the EPA's 1986 *Guidance for Preventing Asbestos Disease Among Auto Mechanics*, a pamphlet known as the "Gold Book" because of the color of its cover. A public brochure that does not purport to be a formal risk assessment, the Gold Book compiles hearsay assertions from a variety of sources, including a British television show. See PX 14 (A1044-A1060). Without explicitly saying so, the Gold Book implies that exposure to friction products can cause mesothelioma.¹⁸ At trial, Plaintiff and Plaintiff's causation expert repeatedly cited the Gold Book as evidence that the EPA had assessed the matter and concluded that friction products can cause mesothelioma (see, e.g., 2/13/07 pm Tr. 60:16-19, 107:1-12 (A567, A573); 3/1/07 am Tr. 127:10-21 (A751)), although in fact the EPA had conducted no formal risk assessment as of the Gold Book's publication; and when it subsequently did conduct a comprehensive assessment, it chose to take no action against friction products, instead banning only non-friction asbestos products. See n.4 supra. Rejecting the argument that the Gold Book was inadmissible hearsay not reasonably relied upon by an expert given its lack of scientific underpinning, Judge Slight held that "the document is sufficiently trustworthy to qualify as an exception to the hearsay

known about chrysotile generally, rooted in the assumption that "[t]here is nothing different about the asbestos in brake products." 10/19/05 pm Tr. 100:12-18 (A516); see also 112:7-14 (A517) (acknowledging that none of his cellular studies were performed with friction products). In addition to relying on what is known about chrysotile generally, Hammar's opinion that friction products can cause mesothelioma rested primarily on case reports (see 10/18/05 am Tr. 38:5-39:15 (A460-A461)) "despite the epidemiology" supporting the opposite conclusion. 10/18/05 am Tr. 85:14-17 (A463).

¹⁸ The Gold Book begins by stating that "friction products . . . often contain asbestos" and then proceeds to describe mesothelioma as a possible "consequence" of exposure to asbestos. PX 14, at 1-2 (A1045-A1046).

rule" and that "the document and the information contained in it can come in through [plaintiffs'] experts as one piece of the puzzle that they are putting together to show liability." *In re Asbestos Litig. (Pate Trial Group)*, C.A. Nos. 05C-05-270, 05C-05-273, 05C-05-302, 05C-06-176 (Del. Super.), 5/9/06 am Tr. 88:5-19 (A535).

c. Other Pretrial Rulings

Judge Johnston, who presided at the trial, adopted each of Judge Slight's' pretrial rulings. *See, e.g.*, 2/12/07 am Tr. 96:14-102:3 (A539-A545) (the court "will be guided by Judge Slight's' ruling" on the admissibility of the Gold Book); 2/16/07 pm Tr. 8:13-21 (A620) ("I do not intend to deviate from Judge Slight's' prior rulings."); 2/20/07 am Tr. 3:10-14 (A628) ("I have been in conference with Judge Slight and Commissioner White on [certain] issues to make sure they are resolved consistent with prior practice.").

In addition to adopting Judge Slight's' pretrial rulings, Judge Johnston issued several of her own. In one, Judge Johnston denied Defendants' motion to preclude introduction of a 1948 article that Plaintiff claims was authored by V.J. Castrop, an industrial hygienist then employed by GM. *See* 2/12/07 am Tr. 108:22-110:23 (A546-A548). Plaintiff used the article, which discusses possible consequences of exposure to asbestos dust during the manufacture of automotive brakes, as evidence that by 1948 GM was aware of the danger friction products allegedly posed to auto mechanics. *See, e.g.*, 3/1/07 am Tr. 57:7-12 (A730). Although the 1948 article purports to have been "condensed from a paper presented" by Castrop in 1947 (PX 4, at 20 (A1030)), Plaintiff offered no evidence that the 1948 article was written by Castrop or accurately reflects what he had presented in 1947. In fact, Castrop's 1947 presentation, from which the article was purportedly "condensed," never mentioned asbestos. *Cf.* V.J. Castrop,

Recognition and Control of Fume and Dust Exposure, in 5 Transactions: 35th National Safety Congress (1947) (A1019-A1026). Nonetheless, despite recognizing that "it may or may not be an accurate statement of what was said," the trial court admitted the article "as an admission against interest." 2/12/07 am Tr. 110:16-18 (A548).

2. Trial

At trial, Plaintiff adopted the avowedly simplistic theme of "ABC. Asbestos, brakes, cancer." 2/12/07 pm Tr. 9:22 (A550). Disregarding the significant differences among types of asbestos and asbestos products--and in particular the substantial differences between friction and non-friction products--Plaintiff told the jury that "[a]sbestos is asbestos is asbestos." *Id.* at 18:11-12 (A551). Consistent with this approach, Plaintiff's causation expert, Lemen, opined that "brake-repair workers, when exposed to asbestos, are at risk of developing the disease mesothelioma." 2/13/07 pm Tr. 107:7-9 (A573). In reaching this conclusion, Lemen relied primarily on case reports, toxicology studies, and animal experiments. *See id.* at 99:19-100:4 (A569-A570); *see also* 911 A.2d at 1204-05 (A434-A436). Confronted with the many epidemiological studies to have found that exposure to friction products does not cause an increased risk of mesothelioma, Lemen simply insisted: "I'll never be convinced that brake workers are not at risk of developing mesothelioma as long as I know brakes release asbestos during the process of working with them, that is true. I don't care how many epidemiological studies you have." 2/15/07 pm Tr. 99:1-12 (A614).

Defendants argued that the extensive epidemiology demonstrating that auto mechanics are not at increased risk of mesothelioma suggests that Plaintiff's disease is most likely the result of his repeated exposure to **non**-friction asbestos products. *See, e.g.,* 3/1/07 am Tr.

88:9-89:19, 99:3-103:1 (A741-A742, A743-A747). Plaintiff was exposed to non-friction asbestos from a young age. As a child, he accompanied his father "all the time" to construction sites, where he was exposed to boilers and insulation, both of which likely contained amphibole asbestos. Grenier Depo. 2/28/06 pm Tr. 12:3-17:12, 19:3-20:22 (A519-A520, A521); 2/26/07 am Tr. 135:5-137:20 (A697-A699).¹⁹ As a young man, Plaintiff worked in factories where he inhaled dust from crumbling insulation that likely contained amphibole asbestos. Grenier Depo. 2/28/06 pm Tr. 24:14-33:2 (A522-A524); 2/26/07 am Tr. 118:4-124:3 (A688-A694). In the 1980s, Plaintiff worked as a school custodian, again suffering workplace exposure to amphibole asbestos when he removed asbestos-containing tiles and inhaled insulation dust while helping repair a boiler. See 2/21/07 am Tr. 120:11-15 (A653); Grenier Depo. 2/28/06 pm Tr. 74:4-75:1, 76:6-79:12, 81:22-82:3 (A525, A525-A526, A526-A527); 2/26/07 am Tr. 132:5-133:5 (A695-A696).

Plaintiff also admitted that during the 1950s he smoked Kent cigarettes (Grenier Depo. 2/28/06 pm Tr. 87:9-19 (A528)), whose "micronite" filters contained crocidolite, the most toxic form of asbestos. Despite Plaintiff's admission, the trial court precluded Defendants from cross-examining Plaintiff's experts on the significance of this fact. See 2/13/07 am Tr. 4:10-11, 7:22-23 (A555, A558). Had the cross-examination been allowed, the jury would have learned that, according to Plaintiff's own expert, William Longo, people who smoked Kent cigarettes "were exposed to substantial amounts of crocidolite" and are therefore at "an increased risk of mesothelioma." W.E. Longo, *et al.*, *Crocidolite Asbestos Fibers in Smoke from Original Kent Cigarettes*, 55 *Cancer Research* 2232, 2235

¹⁹ These and certain other portions of Plaintiff's videotaped deposition were played to the jury.

(1995).²⁰ But, having been told falsely by Plaintiff's counsel that "Kent made lots of different kinds of cigarettes" during the relevant period (2/13/07 am Tr. 4:17-18 (A555))²¹, the court refused to allow Defendants' intended cross-examination, finding that Defendants could not prove that the cigarettes Plaintiff smoked had in fact utilized the crocidolite-containing "micronite" filter. See *id.* at 8:1 (A559).

During trial, Plaintiff--over Defendants' objection (see 2/15/07 am Tr. 61:14-62:5 (A575-A576))--repeatedly referred to the amount Defendants have spent on experts in the course of defending themselves against asbestos-related claims in this case and others. The amount cited by Plaintiff, \$19 million, includes \$5.6 million paid to Dennis Paustenbach, Brent Finley, David Garabrant, Michael Goodman, and the ChemRisk firm, none of whom testified at trial. See 2/16/07 pm Tr. 10:22-15:14 (A621-A626). Despite the patent irrelevance of the amount paid to experts with no involvement in this case to the possible bias of the testifying experts, Plaintiff referred to the \$19 million figure during opening argument, during the presentation of evidence, and during closing argument. See, e.g., 2/12/07 pm Tr. 30:4-22 (A552); 2/15/07 am Tr. 81:4-8 (A586); 3/1/07 am Tr. 66:18-20 (A733).

Plaintiff gave an inflammatory closing argument. Trumpeting the \$19 million figure over and over again, Plaintiff, over Defendants' objection, told the jury that the sum illustrated "how little [the Defendants] care about being in trial but how much they care about buying a defense." 3/1/07 am Tr. 75:14-17 (A738). Hammering away at

²⁰ Both Plaintiff and Defendants had specifically told the trial court that Defendants intended to rely on Longo's research to substantiate the medical consequences of Plaintiff having smoked Kent cigarettes. See 2/12/07 am Tr. 94:1-2, 95:6-9 (A537, A538); 2/13/07 am Tr. 7:8-8:6 (A558-A559).

²¹ In fact, only one type of Kent cigarette was sold during the 1950s. See John C. Maxwell, Jr., *Historical Sales Trends in the Cigarette Industry: A Statistical Summary Covering 74 Years (1925-98)*, at 15.

that theme, Plaintiff read to the jury excerpts from an article--which Plaintiff's counsel told the court had been introduced at trial, but which had not--entitled "Abuse of Epidemiology: Automobile Manufacturers Manufacture a Defense to Asbestos Liability." The article purports to describe "how asbestos line[d] brake manufacturers have corrupted medical literature to escape liability" and have funded studies "to enable them to claim that work with [as]best[os] brake linings never causes mesothelioma." *Id.* at 125:3-10 (A750). Finally, in a thinly disguised appeal to the jury's emotions, Plaintiff's counsel--disregarding the court's admonition that he represented only Plaintiff, and not Plaintiff's family--invoked the image of Plaintiff's "family * * * stand[ing] at Roland Grenier's grave site after this cancer kills him." *Id.* at 77:2-7 (A740); *cf. id.* at 12:2-18 (A723).

During deliberations, the jury sent a note in which it asked, "Can we have any of the studies or published papers to review?" 3/2/07 am Tr. 3:9-10 (A755). The court answered, "No, these documents have not been admitted as evidence." *Id.* at 6:12-13 (A757). Defendants objected. Concerned that the instruction would cause the jury to disregard entirely the content of the scientific studies even though portions had been read into evidence by the expert witnesses, Defendants asked that it be supplemented to inform the jury that "scientific evidence is admitted through expert testimony." *Id.* at 7:18-19 (A758). The court declined to do so. *Id.* at 7:20-22 (A758).

The jury, which received the case after Defendants' motion for a directed verdict had been denied (*see* 2/28/07 am Tr. 15:6-17 (A721)) returned a verdict for Plaintiff, finding GM negligent and both Ford and GM strictly liable. It awarded Plaintiff \$2,000,000 in compensatory damages. Dkt. No. 604, at 6 (A766).

3. Evidence Plaintiff Concealed Until After Trial

During post-trial briefing, Plaintiff revealed for the first time that he had submitted claims against two bankrupt entities--Harbison-Walker ("H-W") and United States Gypsum ("USG")--in which he asserted that he was entitled to compensation for contracting mesothelioma because of his exposure to their *non-friction* asbestos products.²²

Plaintiff's previously undisclosed claims share three significant attributes. First, each was made against a trust established by a manufacturer of non-friction products for the express purpose of resolving claims for personal injury "caused by . . . exposure to" that manufacturer's asbestos-containing products.²³ Second, each claim required that Plaintiff "demonstrate . . . meaningful . . . exposure" to "asbestos-containing products . . . manufactured . . . by" the relevant manufacturer.²⁴ Third, each claim required that Plaintiff affirm the truth of his claim by submitting "a certification . . . sufficient to meet the requirements of Rule 11(b) of the Federal Rules

²² Plaintiff's claim against H-W arises from his exposure to Metalcast Firebrick, a refractory ceramic used to line furnaces. See Claim of Roland Grenier, Sr. against DII Industries, LLC Asbestos PI Trust ("H-W Claim"), at n.p. (Dkt. No. 566, Ex. A; A770-790). Plaintiff's claim against USG arises from his exposure to Durabond joint compound. See Claim of Roland Grenier, Sr., against United States Gypsum Asbestos Personal Injury Settlement Trust ("USG Claim"), at 6 (Dkt. No. 566, Ex. B; A852-A896).

²³ Preamble to United States Gypsum Asbestos Personal Injury Settlement Trust Distribution Procedures ("USG TDP"), at 1 (emphasis added) (Dkt. No. 561, Ex. 4; A902); see also Preamble to DII Industries, LLC Asbestos PI Trust Second Amended Trust Distribution Procedures ("DII TDP") (trust established for purposes of "resolving all Asbestos Unsecured PI Trust Claims" as defined in the Definitive Uniform Glossary of Defined Terms for [DII] Plan Documents), at 1 (Dkt. No. 575, Ex. 5; A833); [Definitive] Uniform Glossary of Defined Terms for [DII] Plan Documents ¶¶ 20, 34 (defining Asbestos Unsecured PI Trust Claims as claims for personal injury "caused or allegedly caused . . . by asbestos or asbestos-containing products sold . . . by a Harbison-Walker Entity"), filed in *In re Mid-Valley, Inc.*, No. 03-35592 JKF (Bankr. W.D. Pa.), Dkt. No. 2086 (A834-00835, A836).

²⁴ DII TDP §§ 5.3(a)(3), 5.7(c) (emphasis added) (A808; A822) see also USG TDP § 5.3(a)(3); USG TDP § 5.7(b)(3) (A924-A928; A942-A943).

of Civil Procedure.”²⁵ Each claim thus constitutes a formal admission by Plaintiff that his exposure to non-friction asbestos products was “meaningful” and demonstrates that Plaintiff believes he is entitled to compensation for contracting mesothelioma based on his exposure to non-friction asbestos products--exposure that, at trial, his counsel contended was too insignificant to have caused his mesothelioma.

Plaintiff’s claims against H-W and USG also contain significant admissions concerning Plaintiff’s occupation over the relevant time period. In his claim against H-W, Plaintiff lists his occupation (in 1980 and 1981) as “custodian, boiler room maintenance.” H-W Claim, at n.p. (A777). In his claim against USG, Plaintiff lists his “occupation at time of exposure”--between 1957 and 1967--as a self-employed “remodeler” working in the “construction” industry, and declares that he “was exposed on a regular basis to asbestos fibers” in the course of such work. USG Claim, at 6-7 (A857-A858).

Neither claim was disclosed to Defendants prior to trial, which began on February 12, 2007, and concluded on March 2, 2007. Although Plaintiff filed his claim against H-W on September 9, 2006 (see H-W Claim, at 4 (A773)), well before trial, he did not reveal the claim until March 30, 2007, nearly a month after trial ended. Plaintiff’s failure to reveal this information prior to or at trial violated his court-ordered obligation to provide Defendants with “[c]opies of all claim forms . . . related to any claims made by plaintiff to any . . . trust . . . wherein plaintiff . . . asserts . . . entitlement to compensation . . . as a result of exposure to and/or injury related to asbestos”--an obligation that expressly ran “up to and including the time of trial.” Standing Order No. 1, at ¶ 7, *In re Asbestos Litig.*,

²⁵ DII TDP § 6.1 (A825-00826); see also H-W Claim, at 4 (Plaintiff’s certification “under penalty of perjury[] that the information that I have provided to support the Claim is true according to my knowledge”) (Dkt. No. 566, Ex. A; A773); USG TDP § 6.1 (A946).

C.A. No. 77C-ASB-2 (Del. Super. Oct. 16, 2006) (A378-00380).²⁶ At a post-trial hearing, Plaintiff claimed his failure to produce the H-W claim was inadvertent, but conceded that the claim should have been provided to the Defendants. See 4/30/07 Tr. 35:19-21 (A760).

It is unclear precisely when Plaintiff filed his claim against USG. The USG trust began accepting claims on February 19, 2007 (see <http://usgasbestostrust.com/default.asp> (A985)), well before the conclusion of trial. In the court below, Plaintiff asserted, but offered no proof, that his claim against USG was filed after trial.

4. Motion for a New Trial

Defendants' motion for a new trial raised several issues. Defendants argued that they were entitled to a new trial because, among other reasons: (i) the newly revealed evidence of Plaintiff's claims against H-W and USG would probably have changed the result had it been presented to the jury; (ii) the court's response to the jury's note asking to see the scientific studies discussed by the expert witnesses was misleading; and (iii) the jury's verdict was, in light of Plaintiff's inflammatory closing, based on passion.

Judge Johnston denied Defendants' motion for a new trial. Focusing on Plaintiff's claim against USG and without any discussion of his claim against H-W, the court found that "the newly-discovered evidence probably would not have changed the result if presented to the jury." 7/31/07 Order, at 10 (A996). As for its answer to the jury note, the court found that its limited response was "literally and legally correct." *Id.* at 4 (A990). The Court also rejected Defendants' contention that the jury's verdict was influenced by passion stoked by improper argument. *Id.* at 8 (A994).

²⁶ Standing Order No. 1 applies to this and every other case filed in Delaware in which "the primary issue is . . . alleged personal injury related to asbestos or asbestos-containing products." Standing Order No. 1, at ¶ 2 (A377).

Argument

Plaintiff's case is built on junk science and gamesmanship. His claim that friction products cause mesothelioma rests on discredited assertions that are contrary to the overwhelming weight of extensive epidemiological evidence. Plaintiff concealed evidence, presented evidence that should not have been admitted, and, in closing, relied on inflammatory purported "facts" that were not in evidence. For its part, the trial court admitted evidence that should have been excluded, and excluded evidence that should have been admitted. Because Plaintiff failed to prove causation, Defendants are entitled to judgment as a matter of law. In any event, given the legal errors below, Defendants are entitled to a new trial.

I. THE TRIAL COURT FAILED TO PERFORM ITS GATEKEEPER FUNCTION UNDER DAUBERT, ALLOWING PLAINTIFF TO PRESENT IRRELEVANT AND UNRELIABLE EXPERT TESTIMONY.

A. Question Presented

Whether the trial court erred in admitting expert testimony that exposure to friction products can cause mesothelioma despite the fact that all epidemiological evidence is to the contrary.²⁷

B. Scope of Review

The "trial court's decision to admit or exclude expert testimony is reviewed for abuse of discretion." *Spencer v. Wal-Mart Stores East, LP*, 930 A.2d 881, 888 (Del. 2007).

C. Merits

"Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it." *Daubert v. Merrell Dow*

²⁷ Preserved at Master Asbestos File 77C-ASB-2 (Del. Super.), Dkt. 2167 (DaimlerChrysler Corporation's Motion in Limine to Exclude Expert Testimony that Automotive Friction Products Cause Asbestosis, Lung Cancer and Mesothelioma); Dkt. No. 2247 (order binding all Delaware asbestos parties to ruling on DaimlerChrysler's *Daubert* motion); Dkt. No. 2264 (Ford's joinder of motion); Dkt. No. 2265 (GM's joinder of motion).

Pharm. Inc., 509 U.S. 579, 595 (1993). Accordingly, "trial courts have a gatekeeping obligation to ensure that all expert testimony is reliable and relevant.'" *Spencer*, 930 A.2d at 889 (quoting *White v. United States*, 422 F. Supp. 2d 1089, 1093 (D. Ariz. 2006)). The standard by which the admissibility of expert testimony is judged, established by *Daubert* and adopted by this Court in *M.G. Bancorporation v. LeBeau*, 737 A.2d 513 (Del. 1999), "is restrictive, with a focus on the Trial Judge's responsibility as a gatekeeper on reliability." *Minner v. Am. Mort. & Guar. Co.*, 791 A.2d 826, 841 (Del. Super. 2000). Accordingly, trial "[c]ourts are not just to let the opinion of the credentialed expert into evidence for what it is worth and leave its evaluation to the jury." *Id.* That, however, is precisely what happened here.

1. The proponent of expert testimony bears the burden of establishing its admissibility.

The party offering expert testimony bears the burden of establishing its admissibility. See *Bowen v. E.I. DuPont de Nemours & Co., Inc.*, 906 A.2d 787, 795 (Del. 2006). Before admitting expert testimony, the trial court must find that:

(i) the witness is "qualified as an expert by knowledge, skill, experience, training or education" ...; (ii) the evidence is relevant and reliable; (iii) the expert's opinion is based upon information "reasonably relied upon by experts in the particular field" ...; (iv) the expert testimony will "assist the trier of fact to understand the evidence or to determine a fact in issue" ...; and (v) the expert testimony will not create unfair prejudice or confuse or mislead the jury.

Eskin v. Camden, 842 A.2d 1222, 1227 (Del. 2004) (quoting *Cunningham v. McDonald*, 689 A.2d 1190, 1193 (Del. 1997)); see also DRE 702. Here, the testimony of Plaintiff's causation expert, Lemen, failed to satisfy four of the five criteria. Lemen gave testimony that was irrelevant and unreliable, was not based upon information reasonably

relied upon by epidemiological experts, did not assist the jury in determining the dispositive fact in issue, and served only to confuse or mislead the jury.

2. The only relevant issue is whether friction products cause mesothelioma.

"Expert testimony must be both relevant and reliable in order to be admissible." *Price v. Blood Bank of Delaware, Inc.*, 790 A.2d 1203, 1210 (Del. 2002). Here, neither prong is satisfied: Lemen's testimony as to asbestos generally is irrelevant, and his testimony as to friction products in particular is unreliable.

To be admissible, expert testimony must be "relevant to the circumstances **of the particular case.**" *Eskin*, 842 A.2d at 1228 (emphasis added); see also *Daubert*, 509 U.S. at 592 (Rule 702 "requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility") (emphasis added). In a toxic tort case, such as this, the plaintiff must present expert testimony to establish that exposure to the substance in question can cause the injury about which plaintiff complains. See *Norris v. Baxter Healthcare Corp.*, 397 F.3d 878, 881 (10th Cir. 2005). Here, Plaintiff, who alleges injury from working with Defendants' friction products, was required to present admissible expert testimony establishing that exposure to **friction products** can cause mesothelioma. See *In re Asbestos Litig.*, 911 A.2d at 1202 ("plaintiffs must establish that their experts can reliably conclude that exposure to friction products increases the risk of contracting an asbestos-related disease"). Plaintiff failed to do so.

3. Epidemiology is the most reliable evidence of causation in the toxic tort context.

Epidemiology is "the medical science devoted to determining the cause of disease in human beings." *Siharath v. Sandoz Pharm. Corp.*,

131 F. Supp. 2d 1347, 1356 (N.D. Ga. 2001). It is well established that "epidemiological studies provide 'the primary generally accepted methodology for demonstrating a causal relation between a chemical compound and a set of symptoms or disease.'" *Id.* (quoting *Conde v. Velsicol Chem. Corp.*, 804 F. Supp. 972, 1025-26 (S.D. Ohio 1992), *aff'd*, 24 F.3d 809 (6th Cir. 1994)); *see also* *Norris*, 397 F.3d at 882; *Rider v. Sandoz Pharm. Corp.*, 295 F.3d 1194, 1198 (11th Cir. 2002); *In re Breast Implant Litig.*, 11 F. Supp. 2d 1217, 1224 (D. Colo. 1998).

By contrast, case reports--and other sources of information, such as animal and in vitro studies--are "universally recognized as insufficient and unreliable evidence of causation." *In re Diet Drugs*, 2001 WL 454586, at *15 (E.D. Pa. Feb. 1, 2001); *see also, e.g.,* *Siharath*, 131 F. Supp. 2d at 1359 ("case reports in general do not satisfy the requirements of the scientific method sufficient to establish general causation"); *Hollander v. Sandoz Pharm. Corp.*, 95 F. Supp. 2d 1230, 1235-38 (W.D. Okla. 2000) ("case reports have been repeatedly rejected as a scientific basis for a conclusion regarding causation"); *Hall v. Baxter Healthcare*, 947 F. Supp. 1387, 1411 (D. Or. 1996) ("case reports and case studies are universally regarded as an insufficient scientific basis for a conclusion regarding causation because case reports lack controls"); *Casey v. Ohio Med. Prods.*, 877 F. Supp. 1380, 1385 (N.D. Cal. 1995) ("case reports are not reliable scientific evidence of causation"). Case reports, animal experiments, and toxicological studies are useful for generating hypotheses, but, to establish causation, those hypotheses must then "be evaluated through the epidemiological method." *Meister v. Medical Engineering Corp.*, 267 F.3d 1123, 1131-32 (D.C. Cir. 2001) (affirming JNOV for defendant in toxic tort case where plaintiff's expert relied on case reports); *see also* *Brock v. Merrell Dow Pharm., Inc.*, 874 F.2d 307,

315 (5th Cir. 1989) ("speculation unconfirmed by epidemiologic proof cannot form the basis for causation in a court of law").

The need for epidemiological evidence to establish causation is particularly acute in this case. Plaintiff concedes, and the trial court acknowledged, that no one knows the specific mechanism by which mesothelioma is caused. See *In re Asbestos Litig.*, 911 A.2d at 1203 & n.169 (A433-A434); see also, e.g., 10/17/05 pm Tr. 49:5-15, 52:1-4, 54:3-14 (A448, A449, A450); 10/19/05 pm Tr. 86:10-13 (A515); 2/15/07 pm Tr. 60:14-15 (A611); 2/16/07 am Tr. 20:23-21:3 (A616-A617). Yet, as various courts have recognized, "[i]n the absence of an understanding of the biological and pathological mechanisms by which disease develops, epidemiological evidence is the most valid type of scientific evidence of toxic causation." *Soldo v. Sandoz Pharm. Corp.*, 244 F. Supp. 2d 434, 449 (W.D. Pa. 2003) (quoting Linda A. Bailey, et al., *Reference Guide on Epidemiology*, in *Reference Manual on Scientific Evidence* 126 (1994)). See also *Pozefsky v. Baxter Healthcare Corp.*, 2001 WL 967608, at *3 (N.D.N.Y. Aug. 16, 2001); *In re Breast Implant Litig.*, 11 F. Supp. 2d at 1224. When, as here, the etiology of a disease is unknown, "there is a large *terra incognita* where gossip and guesswork abound, so courts must carefully control the basis for testimony pointing to a particular cause." *Lynch v. Merrell-Nat'l Labs.*, 830 F.2d 1190, 1194 (1st Cir. 1987) (affirming summary judgment for defendant in toxic tort case where the biological origin of the claimed injury was "unknown" and plaintiff presented no epidemiological evidence to prove causation).

4. All reliable epidemiological studies show that exposure to friction products does not increase the risk of contracting mesothelioma.

The question of whether friction products can cause mesothelioma has been studied extensively by epidemiologists. Notably, **no** reliable

epidemiological study has found that auto mechanics, who are routinely exposed to friction products such as brakes and clutches, are at an increased risk of contracting mesothelioma. Not one. Even Plaintiff's causation expert, Lemen, conceded that he knew of no epidemiological study showing auto mechanics to be at an increased risk of mesothelioma. See 10/19/05 am Tr. 125:19-23 (A511); 2/15/07 am Tr. 100:9-101:5 (A587-A588); 2/16/07 am Tr. 70:11-14 (A618). In fact, **every** reliable epidemiological study to have examined the issue has concluded that auto mechanics are **not** at increased risk of mesothelioma.²⁸

5. **In the face of overwhelming epidemiologic evidence refuting a connection between friction products and mesothelioma, there is no scientifically reliable basis for asserting that friction products cause mesothelioma.**

In light of the numerous epidemiologic studies--conducted by different researchers, at different times, across different populations, using different methodologies--that have uniformly found no increased risk of mesothelioma among auto mechanics, there is no scientifically reliable, and thus no legally admissible, basis for asserting that friction products cause mesothelioma.

Numerous courts have recognized that where, as here, extensive, unanimous epidemiologic evidence demonstrates no increased risk of disease from the substance in question, other, lesser forms of evidence that purport to show causation are unreliable and therefore inadmissible. See, e.g., *Raynor v. Merrell Pharm., Inc.*, 104 F.3d 1371, 1375-76 (D.C. Cir. 1997) (affirming exclusion of causation opinion where an "overwhelming body of contradictory epidemiological evidence" existed, noting that "where sound epidemiological studies produce opposite results from nonepidemiological ones, the rate of

²⁸ See studies cited at n.12 *supra*.

error of the latter is likely to be quite high"); *Pozefsky*, 2001 WL 967608, at *4-*7 (N.D.N.Y. Aug. 16, 2001) (excluding expert testimony as to causation in light of the "overwhelming weight of scientific [epidemiological] authority to the contrary"); *Siharath*, 131 F. Supp. 2d at 1358 (excluding expert testimony as to purported causation where "[t]he epidemiological studies either show no relationship or a negative relationship between the [substance] and [the disease]"); *Grant v. Bristol-Myers Squibb*, 97 F. Supp. 2d 986, 987 (D. Ariz. 2000) (excluding proffered testimony as to purported causation where "[i]n all of the epidemiological studies, there is no associated increasing incidence of disease with increased exposure to the agent"); *Awad v. Merck & Co.*, 99 F. Supp. 2d 301, 306-07 (S.D.N.Y. 1999) (excluding expert testimony where "not one study has shown a statistically significant causal relationship between the [substance] and [the disease]" and the available epidemiological evidence contradicted the expert's causation theory).²⁹

Plaintiff's expert, Lemen, quibbled with the many epidemiological studies finding that auto mechanics are at no increased risk of contracting mesothelioma, *cf.* 10/19/05 am Tr. 51:12-72:23 (A473-A494), but such criticism does not satisfy Plaintiff's "affirmative duty to establish the scientific reliability of [his own] expert's proposed testimony." *Pozefsky*, 2001 WL 967608, at *7. As another court has recognized in similar circumstances:

None of the epidemiological studies are perfect; all have their flaws. It is important to recall, however, that the burden is on Plaintiffs to show that well-conducted epidemiological studies do show a statistically significant relationship between [the substance at issue] and [the alleged injury]. It is not Defendant's burden to show the lack of such relationship. Plaintiffs' well-

²⁹ See also page 39 *infra* (citing cases granting defendant summary judgment or judgment as a matter of law where plaintiff's causation evidence was contrary to extensive epidemiological evidence).

taken criticisms of the epidemiological studies does not satisfy their burden of proof.

Siharth, 131 F. Supp. 2d at 1358 (excluding causation experts' testimony as unreliable under *Daubert* where epidemiologic evidence was to the contrary); see also *Norris*, 397 F.3d at 886 ("Mere criticism of epidemiology cannot establish causation."); *Conde v. Velsicol Chem. Corp.*, 24 F.3d 809, 814 (6th Cir. 1994) ("critiques [of contrary epidemiological studies] only underscore the need for further studies, and do not . . . establish causation"); *Caraker v. Sandoz Pharm. Corp.*, 188 F. Supp. 2d 1026, 1034 (N.D. Ill. 2001) (granting *Daubert* motion because "broad criticisms of the existing epidemiological evidence does not help [plaintiffs] meet their burden"); *Glastetter v. Novartis Pharm. Corp.*, 107 F. Supp. 2d 1015, 1044 (E.D. Mo. 2000) (excluding expert causation witnesses where "[i]n the absence of their own epidemiological evidence supporting the conclusions of their experts that [the substance in question] can cause [the injury alleged], the best plaintiffs can do is attack defendant's studies").

Judge Slights held that "Plaintiffs need not support their general causation case with epidemiological evidence." 911 A.2d at 1209. It may well be true that plaintiffs are not required to present epidemiologic evidence when none exists. But when epidemiologic evidence does exist, it cannot be ignored. In cases such as this, where the precise question at issue has been repeatedly and extensively analyzed in peer-reviewed epidemiologic studies and each of those studies has concluded that persons such as Plaintiff are not at increased risk of disease from the substance in question, Plaintiff cannot meet his burden under *Daubert*.³⁰

³⁰ Erroneously describing it as "the only known decision that has considered the precise question before the court," the court cited *Chapin v. A & L Parts, Inc.*, Case No. 03-324775-NP (Mich. 3d Cir. Ct. May 25, 2004) (C1-C39), in support of admitting "plaintiff's general

6. Allowing Plaintiff to rely on studies relating to chrysotile asbestos was erroneous.

Based on Dodson's testimony, Judge Slight's found that friction fibers are indistinguishable from raw chrysotile fibers, and that Plaintiff's causation expert could therefore rely on studies relating to chrysotile generally. That was error.

As an initial matter, the court's factual finding that friction fibers are indistinguishable from raw chrysotile fibers is not supported by the record. See pages 9-10 *supra*. Dodson acknowledges that surface charge and surface chemistry are two of the factors that might determine whether asbestos fibers cause mesothelioma (see 10/17/05 pm Tr. 57:2-7 (A451)), but admits that he "didn't try to analyze the surface charge or the surface chemistry" of the friction fibers he found. 10/17/05 pm Tr. 96:9-13 (A458).³¹ Given his conceded failure to examine two characteristics that he expressly acknowledges may be significant causal factors, Dodson's studies do not support the conclusion that friction fibers and raw chrysotile are indistinguishable.

causation evidence in the face of contrary epidemiology." See 911 A.2d at 1208. The bench ruling in that case, however, is deeply flawed. It did not so much as discuss, let alone distinguish, the many decisions noted above excluding as unreliable causation evidence that is contrary to the overwhelming weight of epidemiologic evidence. Moreover, the *Chapin* court admitted Lemen's testimony on the basis of case studies, which are "are universally regarded as an insufficient scientific basis for a conclusion regarding causation," *Hall*, 947 F. Supp. at 1411, and on the basis of epidemiology relating to insulators and factory workers, both of whom have significantly higher exposures to significantly more toxic forms of asbestos (from non-friction products) than auto mechanics. Cf. *Chapin*, at 22-23, 28 (C22-C23, C28). As revealed in its concluding paragraph, the poorly reasoned *Chapin* decision is a perfunctory exercise by a previously reversed trial judge intent on reinstating his previously vacated ruling. See *id.* at 38 (C38).

³¹ Lemen also recognized that surface charge and surface chemistry may be significant factors in determining whether a fiber is carcinogenic. See 10/19/05 am Tr. 117:19-118:7 (A504-A505). Moreover, Lemen acknowledged his belief that transmission electron microscopy, the technique used by Dodson, cannot measure surface charge and surface chemistry. See 10/19/05 pm Tr. 33:16-23 (A513).

That conclusion, however, is the foundation for the court's decision to admit Lemen's testimony. See 911 A.2d at 1204 (A434-A435) (describing Dodson as providing the "bridge" between friction fibers and chrysotile fibers); see also *id.* at 1205 (A435-A436) (admitting Lemen's testimony "[b]ased on Dr. Dodson's studies"). Absent the court's erroneous finding that friction fibers and raw chrysotile are indistinguishable, there is no factual predicate for allowing Lemen's testimony, which he admits rests on the *assumption* that the friction fibers "have the same . . . biological propensities as chrysotile fibers that were studied in other areas." 10/19/05 am Tr. 112:19-113:9 (A502-A503).

Because the validity of Lemen's opinion that friction products cause mesothelioma depends on an unsupported assumption, that opinion is scientifically unreliable and therefore inadmissible. Rule 702 "requires a *valid scientific connection to the pertinent inquiry* as a precondition to admissibility." *Daubert*, 509 U.S. at 592 (emphasis added). Here, however, that connection--between chrysotile fibers in general and friction products in particular--is missing. Lemen's unsupported assumption is an insufficient basis for admission of his testimony. When considering the admissibility of expert testimony, a court "must ensure that *in each step*, from initial premise to ultimate conclusion, the expert faithfully followed valid scientific methodology." *Hall*, 947 F. Supp. at 1401 (emphasis added); see also *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 743 (3d Cir. 1994) ("the requirement of reliability, or 'good grounds,' extends to each step in an expert's analysis all the way through the step that connects the work of the expert to the particular case"); *Savage v. Union Pac. R. Co.*, 67 F. Supp. 2d 1021, 1027 (E.D. Ark. 1999) ("Each step of the experts' methodology must be scientifically valid."). A

conclusion that rests on an assumption without empirical foundation, such as Lemen's conclusion that friction products cause mesothelioma, is inadmissible under *Daubert* because it "constitutes 'unsupported speculation.'" *Hall*, 947 F. Supp. at 1401.

Given the fact that no one knows the mechanism by which asbestos causes mesothelioma (see 10/17/05 pm Tr. 49:5-15, 52:1-4; 54:3-14 (A448, A449, A450)); 10/19/05 pm Tr. 86:10-13 (A515)), the lack of adequate foundation for Lemen's testimony is particularly glaring. Surface charge and surface chemistry may in fact be the primary determinants of a fiber's carcinogenicity. In any event, absent knowledge of the precise mechanism by which asbestos causes mesothelioma, one cannot simply assume that friction fibers and chrysotile fibers are causally indistinguishable agents without, at a minimum, a scientifically reliable comparison of their surface charge and surface chemistry, which both Dodson and Lemen conceded may be important determinants of the fibers' biologic activity.

There are a variety of reasons why friction products, despite containing chrysotile, may not cause mesothelioma in auto mechanics. The manufacturing process, during which the chrysotile is heated and embedded in resin, may be one reason. The transformation of the chrysotile fibers into forsterite when the products are used may be another reason. The relatively low exposures mechanics experience may be yet another. See pages 5-6 *supra*. We do not know why raw chrysotile causes mesothelioma, and we do not know why friction products do not cause mesothelioma. But what we **do** know, based on extensive epidemiology, is that auto mechanics are **not** at increased risk of contracting mesothelioma. Plaintiff offered no scientifically reliable testimony to the contrary.

II. DEFENDANTS ARE ENTITLED TO JUDGMENT AS A MATTER OF LAW BECAUSE PLAINTIFF FAILED TO PROVE GENERAL CAUSATION.

A. Question Presented

Whether the trial court erred in denying Defendants' motion for judgment as a matter of law on the ground that Plaintiff failed to prove general causation.³²

B. Scope of Review

This Court "review[s] *de novo* whether a trial court erred in denying a motion for judgment as a matter of law." *Whittaker v. Houston*, 888 A.2d 219, 224 (Del. 2005).

C. Merits

In a toxic tort case such as this, the "plaintiff[] must prove general causation." *Grant v. Pharmative, LLC*, 452 F. Supp. 2d 903, 907 (D. Neb. 2006); *see also In re Meridia Prods. Liab. Litig.*, 328 F. Supp. 2d 791, 798 (N.D. Ohio 2004). That is to say, the plaintiff must prove that "the alleged toxin is capable of causing injuries of the kind suffered by the plaintiff." *In re Rezulin Prods. Liab. Litig.*, 369 F. Supp. 2d 398, 422 (S.D.N.Y. 2005); *see also Norris*, 397 F.3d at 881; *Bonner v. ISP Techs. Inc.*, 259 F.3d 924, 928 (8th Cir. 2001); *In re Breast Implant Litig.*, 11 F. Supp. 2d at 1224 (collecting cases). Thus, in this case, in which Plaintiff alleges that Defendants' friction products caused his mesothelioma, Plaintiff was required to prove that friction products can cause mesothelioma.

Plaintiff failed to provide evidence sufficient to meet that burden. As noted above, *see n.12 supra*, every epidemiologic study to have examined the question has determined that auto mechanics, who are routinely exposed to friction products, are *not* at an increased risk of mesothelioma. In cases such as this, where numerous epidemiologic

³² Preserved at 2/21/07 pm Tr. 112:14-124:5 (A659-A671); 2/28/07 am Tr. 15:6-17 (A721).

studies unanimously conclude that people with exposures such as those alleged by Plaintiff are not at increased risk from such exposures, Plaintiff's claim fails as a matter of law. See, e.g., *Norris*, 397 F.3d at 887 & n.6 (affirming summary judgment for defendant where the opinion of plaintiff's causation experts was contrary to "the epidemiological studies finding no significant risk of . . . disease"); *Meister*, 267 F.3d at 1131-32 (affirming JNOV for defendant where verdict rested upon case reports that were contrary to "voluminous epidemiological evidence"); *Raynor*, 104 F.3d at 1376-77 (affirming JNOV for defendant because chemical, animal, and experimental studies "singly or in combination, are not capable of proving causation in human beings in the face of the overwhelming body of contradictory epidemiological evidence"); *Allison v. McGhan Med. Corp.*, 184 F.3d 1300, 1316 (11th Cir. 1999) (affirming summary judgment where causation opinion offered by plaintiff's experts was contrary to the overwhelming weight of epidemiologic evidence); *Conde*, 24 F.3d at 813-14 (affirming summary judgment for defendant, holding that neither animal studies nor criticism of extensive epidemiology showing no increased risk from substance in question is sufficient to establish causation); *Lynch*, 830 F.2d at 1194 (affirming summary judgment for defendant where "world-wide scientific investigations of [the substance in question] have produced no evidence establishing that [it] causes [the claimed birth-defect], and in which the irrelevance of [the substance] to the incidence of [such defect] has been demonstrated").

At trial, Plaintiff attempted to prove general causation through the testimony of Richard Lemen. Cf. 2/13/07 am Tr. 18:9-12 (A560); 2/13/07 pm Tr. 68:6-8 (A568). Lemen conceded, however, that no epidemiologic study has ever shown auto mechanics to be at an

increased risk of contracting mesothelioma. See, e.g., 2/15/07 am Tr. 100:9-101:5 (A587-A588); 2/16/07 am Tr. 70:11-14 (A618).

Unable to present any epidemiologic evidence that friction products can cause mesothelioma, Lemen relied instead on a hodge-podge of case reports, tissue studies, toxicology studies, and animal experiments. See 2/13/07 pm Tr. 99:19-100:4 (A569-A570); *id.* at 105:14-19 (A571); see also 10/18/05 pm Tr. 47:10-21 (A467); 10/19/05 am Tr. 40:7-11 (A471). Lemen emphasized, for example, that there are at least 165 reported cases of brake mechanics having contracted mesothelioma. See *id.* at 76:14-15 (A495); see also *id.* at 50:17-51:7 (A472-A473). But as discussed above (see pages 24-25 *supra*), case reports are "universally recognized as insufficient and unreliable evidence of causation." *In re Diet Drugs*, 2001 WL 454586, at *15. Case reports "are not reliable scientific evidence of causation[] because they simply describe[] reported phenomena without comparison to the rate at which the phenomena occur in the general population or in a defined control group; do not isolate and exclude potentially alternative causes; and do not investigate or explain the mechanism of causation." *Casey*, 877 F. Supp. at 1385.

Lemen also relied heavily on a tissue study finding chrysotile fibers shorter than 5 microns in length in the mesothelial tissue of persons with mesothelioma.³³ See 2/13/07 pm Tr. 39:14-41:20 (A562-

³³ Needless to say, the mere fact that a fiber is found in the tissue where a mesothelial tumor occurs does not prove that the fiber caused the tumor, particularly when, as Lemen conceded, "we don't know the mechanisms of how mesothelioma develops." 2/15/07 pm Tr. 60:14-15 (A611). In fact, it is impossible to know which particular fiber, if any, caused a particular tumor. See 10/17/05 pm Tr. 62:22-64:3 (A453-A455); 10/19/05 pm Tr. 81:9-11 (A514). Furthermore, even if one could determine that a particular fiber did cause a particular tumor, it would be impossible to determine the fiber's source. See 10/17/05 pm Tr. 64:4-20 (A455). Moreover, Lemen admits both that some mesothelioma occurs in the absence of asbestos exposure, and that "even the best science has no way to distinguish between an asbestos mesothelioma and a non-asbestos mesothelioma." 10/19/05 am Tr. 86:14-

A564); *id.* at 46:8-47:1 (A565-A566). But the study, which examined tissue taken only from persons with mesothelioma and did not examine tissue taken from persons without mesothelioma (*cf.* Y. Suzuki & S.R. Yuen, *Asbestos Tissue Burden Study on Human Malignant Mesothelioma*, 39 *Indus. Health* 150, 150 (2001) (examining "mesothelial tissues . . . taken from 151 human malignant mesothelioma cases") (PDX 329; A1325-A1335)), says nothing about whether chrysotile fibers likewise are found in tissue that does not contain tumors. On direct examination, Lemen testified that "fibers less than five micron in length, often found in brakes and in the brake residue, have been shown to pose a risk of disease." 2/13/07 pm Tr. 106:2-5 (A572). On cross-examination, however, Lemen admitted that his conclusion regarding the risk allegedly posed by short fibers rests on "experimental and toxicological studies." 2/15/07 pm Tr. 72:19-73:1 (A612-A613). But it is well established that such studies, "singly or in combination, are not capable of proving causation in human beings in the face of the overwhelming body of contradictory epidemiological evidence." *Richardson v. Richardson-Merrell, Inc.*, 857 F.2d 823, 830 (D.C. Cir. 1988) (affirming JNOV where plaintiff offered no scientifically reliable evidence to prove general causation); *see also Norris*, 397 F.3d at 887 n.6; *Meister*, 267 F.3d at 1130.

Plaintiff was required to prove general causation. To establish general causation, Plaintiff had to prove that friction products can cause mesothelioma. It is well established that "epidemiological studies provide 'the primary generally accepted methodology for demonstrating a causal relation between a chemical compound and a set of symptoms or disease.'" *Siharath*, 131 F. Supp. 2d at 1356. Plaintiff's own general causation expert concedes, however, that there

87:2 (A496-A497). Thus, no combination of exposure studies and tissue studies could ever prove that friction products cause mesothelioma.

is no epidemiologic evidence that friction products can cause mesothelioma. Indeed, all of the abundant epidemiologic evidence is to the contrary. The non-epidemiologic evidence that Plaintiff offered is legally insufficient "in the face of the overwhelming body of contradictory epidemiological evidence." *Richardson*, 857 F.2d at 830. Accordingly, Defendants are entitled to judgment as a matter of law.

III. THE CONCEALED AND NEWLY DISCOVERED EVIDENCE COMPRISES UNIQUE SUPPORT FOR DEFENDANTS' ALTERNATIVE CAUSATION DEFENSE THAT ENTITLES DEFENDANTS TO A NEW TRIAL.

A. Question Presented

Whether the trial court erred in denying Defendants a new trial based on the newly discovered evidence of Plaintiff's claims against H-W and USG for compensation for having contracted mesothelioma as a result of his exposure to their non-friction products--evidence which uniquely supports Defendants' alternative causation defense and which Plaintiff concealed.³⁴

B. Scope of Review

"This Court reviews the denial of a motion for new trial for abuse of discretion." *Hicks v. State*, 913 A.2d 1189, 1193 (Del. 2006).

A motion for new trial based on newly discovered evidence should be granted when the evidence (1) is not "merely cumulative or impeaching"; (2) "would have probably changed the result if presented to the jury"; and (3) "could not have been discovered before trial with due diligence." *Id.* at 1194. Plaintiff's pre-trial claim against H-W, which he concealed in violation of his discovery obligations, and his claim against USG, which at minimum could have been filed prior to the conclusion of trial, satisfy each of these criteria, addressed in turn below.

C. Merits

At trial, Defendants' central contention was that Plaintiff's mesothelioma could not have been caused by his exposure to friction products and that his disease must instead have been caused by his exposure to *non-friction* asbestos products. Plaintiff's counsel mocked this alternative theory of causation, suggesting that

³⁴ Preserved at Dkt. No. 561, at 2-7; Dkt. No. 575, at 1-16; Dkt. No. 577, at 1-6.

Plaintiff's exposure to non-friction asbestos products had been too insignificant to cause his mesothelioma--asserting, for example, that he did not "remember how Mr. Grenier was an insulator or anything else." 3/1/07 am Tr. 123:9-10 (A748). Indeed, Plaintiff's counsel declared that Plaintiff had given Defendants "everything they needed" to prove that Plaintiff had been meaningfully exposed to non-friction asbestos products, if any such exposure had occurred, and "the best [Defendants] could do was" to identify "a handful of other *brake* manufacturers" (*i.e.*, manufacturers of other *friction* products) as potential sources of Plaintiff's asbestos exposure. *Id.* at 123:5-7 (A748) (emphasis added).

But it came to light in post-trial briefing that in fact Plaintiff had *not* given Defendants "everything they needed" to prove that Plaintiff had experienced meaningful exposure to *non-friction* asbestos products. To the contrary, Plaintiff had specifically failed to disclose that, prior to trial in this case, Plaintiff had filed a claim against H-W, signed by him under penalty of perjury, demanding compensation for having contracted mesothelioma from his "meaningful" exposure to an H-W non-friction asbestos product. It also came to light that Plaintiff filed a similar claim against USG in which he similarly claimed entitlement to compensation for having contracted mesothelioma as a result of his "meaningful" exposure to its non-friction products.

1. Plaintiff's Claims Against H-W And USG Are Unique, Non-Cumulative Evidence That Supports Defendants' Alternative Causation Defense.

Plaintiff's newly discovered claims against H-W and USG, manufacturers of non-friction asbestos products, comprise unique, non-cumulative evidence that supports Defendants' alternative causation defense. They differ from the evidence that had been available to

Defendants at trial in three distinct ways. First, unlike other evidence available to Defendants, and directly contrary to Plaintiff's statements at trial, they establish that Plaintiff's *level of exposure to non-friction* asbestos products was "meaningful." Second, they indicate that, contrary to Plaintiff's repeated contention at trial that there was no evidence that his mesothelioma was caused by exposure to non-friction products, Plaintiff himself believes that his exposure to *non-friction* products *caused* his mesothelioma and entitles him to compensation as a result. Third, because they constitute *admissions against interest* by Plaintiff, the claims are a uniquely powerful and otherwise unavailable *form* of evidence regarding both Plaintiff's level of exposure to non-friction asbestos products and his belief that such exposure caused his mesothelioma.

None of the evidence available to Defendants at trial bore any of those three features.

First, the only evidence concerning the degree of Plaintiff's exposure to non-friction asbestos products indicated that Plaintiff had been exposed to certain non-friction products *to some unspecified degree*. That evidence came from Plaintiff's deposition and from his Work History Sheet, which simply listed (some of) the asbestos-containing products to which Plaintiff was exposed. Neither the deposition nor the Work History Sheet contained any evidence as to either the degree of Plaintiff's exposure or Plaintiff's belief that such exposure caused his mesothelioma. Defendants' alternative causation defense would have been immeasurably stronger had Defendants been able to introduce Plaintiff's admissions that he had suffered a "meaningful" level of exposure to non-friction asbestos products; indeed, sufficiently "meaningful" to entitle him to compensation for contracting mesothelioma as a result.

Second, throughout trial, Plaintiff ridiculed Defendants' position that Plaintiff's exposure to non-friction products likely caused his mesothelioma. Yet the undisclosed fact that Plaintiff had filed claims seeking compensation for having contracted mesothelioma because of his exposure to non-friction products would have powerfully undermined his assertion that such products could not have caused his disease.

Third, there can be no doubt that a party's admission against interest is a particularly compelling form of evidence. *Cf. Evans Medical Ltd. v. Amer. Cyanamid Co.*, 11 F. Supp. 2d 338, 350 (S.D.N.Y. 1998) (describing a party's statement against interest as "the most persuasive" form of evidence). Thus, in addition to containing unique information regarding Plaintiff's level of exposure to non-friction asbestos products and Plaintiff's belief that such exposure caused his disease, Plaintiff's claims constitute a unique form of evidence whose unavailability at trial independently warrants a new trial.

Ignoring each of these three points, the trial court found to the contrary that the newly discovered evidence "would have been cumulative" of evidence pertaining to Plaintiff's exposure to other non-friction products because Plaintiff had identified a USG product, Durabond, on his Work History Sheet. 7/31/07 Order, at 11 (A997). But the mere identification of Durabond on Plaintiff's Work History Sheet was no substitute for disclosure of Plaintiff's claim that he was entitled to compensation from USG because of his exposure to that product, let alone a substitute for disclosure of his claim against H-W.³⁵ The USG claim--like the H-W claim, which the trial court ignored entirely--is significant, not because it evidences Plaintiff's exposure to a non-friction product, but rather because it is an

³⁵ The Work History Sheet did not in any way disclose Plaintiff's exposure to H-W's Metalcased Firebrick.

admission by Plaintiff that *the degree of such exposure* was "meaningful" and, at least in part, a *cause* of his mesothelioma.

2. The Verdict Would Likely Have Been Different Had The Newly Discovered Evidence Been Presented To The Jury.

The newly discovered evidence, which Plaintiff in part concealed, goes to the central issue in the case--causation. Had it been available to Defendants at trial, it very likely would have changed the verdict. Defendants' primary defense, supported by extensive epidemiological evidence, was that individuals do not contract mesothelioma from exposure to friction products like those on Defendants' vehicles, but instead contract the disease from exposure to *non-friction* products. As demonstrated by its verdict, the jury did not accept Defendants' theory.

Had the jury been aware, however, that Plaintiff was claiming entitlement to compensation for his mesothelioma from the manufacturers of *non-friction* asbestos products because of his "meaningful" exposure to those products, the jury would likely have given greater credence to Defendants' theory. Indeed, had the jury been aware of Plaintiff's claims for compensation for contracting mesothelioma based on his exposure to *non-friction* products, the jury could have accepted Defendants' alternative causation theory without having to adopt (or even understand) the complex epidemiological analyses that supported it.³⁶

The importance of the newly discovered evidence is perhaps best illustrated by Plaintiff's counsel's emphasis on its *absence* at trial.

³⁶ By depriving Defendants of the ability to prove their alternative causation case through Plaintiff's own admissions, and by thus forcing Defendants to rely solely on epidemiological evidence, Plaintiff's concealment of his previously filed claim against H-W compounded the prejudice that flowed from his repeated suggestions that the epidemiological experts were biased because of the (falsely inflated) amount of compensation they purportedly had received for testifying. *Cf.* pages 62-64 & 75-76 *infra*.

As noted, during closing argument, Plaintiff's counsel downplayed the extent of Plaintiff's exposure to non-friction asbestos products, mockingly noting that he did not "remember how Mr. Grenier was an insulator or anything else." 3/1/07 am Tr. 123:9-10 (A748); see also *id.* at 61:16 (A732) (characterizing Plaintiff's exposure to non-friction asbestos products as limited to nothing more than that which was incidental to "little part-time jobs"). Then, having minimized the extent of Plaintiff's exposure to non-friction asbestos products, Plaintiff's counsel affirmatively asserted that Plaintiff had disclosed to Defendants "everything" about his exposure to asbestos products. *Id.* at 123:3-5 (A748) ("We told them who; we told them how; we told them when; we told them where; we told them everything."). Using that misrepresentation as a springboard, Plaintiff's counsel then asserted that despite having received "everything they needed" to prove their alternative causation theory, "the best [Defendants] could do was" identify "a handful of other brake manufacturers" as potential sources of Plaintiff's asbestos exposure. *Id.* at 123:5-7 (A748) (emphasis added). Because Defendants' alternative causation theory rested on the contention that mesothelioma is not caused by exposure to friction products such as brakes, but is instead caused by exposure to non-friction products, Plaintiff's counsel was then able to argue: "I don't see how *that*"--exposure to other friction products--"gets us to other causes" (*i.e.*, a non-friction product cause) of Plaintiff's mesothelioma. *Id.* at 123:7-8 (A748) (emphasis added). Absent proof that Plaintiff had suffered a meaningful exposure to non-friction products, proof that Plaintiff concealed, Plaintiff's argument seemed plausible.

Had the jury been aware of Plaintiff's claims against H-W and USG, however, the jury would have recognized counsel's

misrepresentation for what it was and would likely have rejected Plaintiff's argument as baseless. If the jury had been aware of Plaintiff's claims against H-W and USG, it would have known of Plaintiff's admissions that he worked as a "remodeler" in the "construction" industry from 1957 to 1967 and in "boiler room maintenance" from 1980 to 1981, and it would have known of his admission that he "was exposed on a regular basis to [non-friction] asbestos fibers" in the course of such work. USG Claim, at 6-7 (A857-A858); H-W Claim, at n.p. (A777). Thus, if the claims had been disclosed, Plaintiff's counsel would not have been able to blithely dismiss Plaintiff's exposure to non-friction products by sarcastically remarking that he did not "remember how Mr. Grenier was an insulator or anything else." The jury would also have known of Plaintiff's admission that his exposure to their non-friction products was "meaningful" and of his belief that he is entitled to compensation for having contracted mesothelioma as a result of that exposure to non-friction products. Had the jury learned of Plaintiff's claims against H-W and USG, it would probably have returned a different verdict. It would likely have found Defendants not liable at all, or liable only to a substantially diminished degree.

3. Plaintiff Concealed The H-W Claim Until After Trial, Despite Defendants' Due Diligence To Obtain It.

The trial court refused to grant a new trial because it believed that evidence of "[p]laintiff's exposure [to non-friction products] could have been discovered through the exercise of due diligence." 7/31/07 Order, at 10 (A996). But the claims are important not because they reveal that Plaintiff had been exposed to non-friction products, but because, as noted above, they establish the extent of the exposure and Plaintiff's belief that such exposure had caused his mesothelioma, and come in the unique form of admissions. Such evidence was only

obtainable in the form of the claims. And it is beyond dispute that Defendants did exercise due diligence to discover the existence of such claims prior to trial.

During discovery, Defendants *specifically requested* that Plaintiff identify any trust from which he "ever claimed . . . entitlement to benefits or compensation for [his] alleged asbestos-related . . . illness[]" and that he "[p]roduce all documents and materials" associated with any such claim. Defs. First Set of Overall Interrogatories and Requests for Production, at ¶ 8 & n.p. (A401& A406). Thus, during pre-trial discovery Defendants specifically demanded precisely the information at issue. The H-W claim was not discovered not because Defendants "failed to exercise due diligence" as the trial court found (*cf.* 7/31/07 Order, at 10 (A996)), but rather because Plaintiff, despite Defendants' due diligence, *failed to disclose the evidence* at the time the claim was made and failed to supplement his response at any point thereafter, in blatant violation of his discovery obligations. Under Delaware rules, that failure constituted a "knowing concealment." Del. Super. R. Civ. P. 26(e)(2).

As this Court has recognized, "the concealment of evidence during discovery[] represents a wrong not only as to the [adverse] party but to the court as well." *E.I. DuPont de Nemours & Co. v. Florida Evergreen Foliage*, 744 A.2d 457, 461 (Del. 1999). Plaintiff's failure to disclose the H-W claim is particularly egregious in light of the fact that, independent of Defendants' requests and the generally applicable rules of civil procedure, Judge Slights had expressly *ordered* Plaintiff to produce "[c]opies of all claim forms and related materials related to any claims made by plaintiff to any . . . trust . . . wherein plaintiff directly or indirectly asserts . . . entitlement to compensation . . . as a result of exposure to and/or

injury related to asbestos." Standing Order No. 1, at ¶ 7, *In re Asbestos Litig.*, C.A. No. 77C-ASB-2 (Del. Super. Oct. 16, 2006) (A378-A380). Plaintiff concedes he failed to fulfill his discovery obligations with respect to the H-W claim. See 4/30/07 Tr. 35:19-21 (A760).³⁷

* * *

In sum, Plaintiff's newly discovered claims against manufacturers of non-friction asbestos products--one of which he filed before trial but actively concealed, and another of which apparently was withheld until the completion of trial--constitute uniquely powerful evidence supporting the defense. Either claim alone would have exposed the falsity of assertions Plaintiff made at trial and would have strongly buttressed Defendants' contention that Plaintiff's mesothelioma likely was caused by his exposure to non-friction asbestos products. The nondisclosure of each of these claims, which Defendants exercised due diligence to discover prior to trial, thus likely affected the jury verdict. Accordingly, a new trial is warranted.

³⁷ As for the USG claim, the trial court accepted Plaintiff's assertion that the claim was not filed until after trial was over despite Plaintiff's failure to adduce any evidence to support that assertion. See 7/31/07 Order, at 11 (A997); cf. Dkt. No. 566, at 1. But even assuming that finding is correct, Plaintiff concedes that the USG trust began accepting claims in the middle of February 2007, *i.e.*, well before the conclusion of trial. See Dkt. No. 566, at 1; cf. <http://usgasbestostrust.com/default.asp> (declaring that USG trust began accepting claims on February 19, 2007) (A985)). Plaintiff should not be permitted to evade his discovery obligations under Standing Order No. 1, which expressly ordered the disclosure of such claims "up to and including the time of trial," by waiting until after trial concluded to file his claim. Standing Order No. 1, at ¶ 7 (A378-A380).

IV. THE TRIAL COURT MADE SEVERAL ERRONEOUS AND HIGHLY PREJUDICIAL EVIDENTIARY RULINGS.

A. Questions Presented

1. Whether the trial court erred in admitting, and allowing the disclosure of, a highly prejudicial document even though it was unreliable hearsay.³⁸

2. Whether the trial court erred in precluding Defendants from cross-examining Plaintiff's experts about the likelihood that Plaintiff's mesothelioma was caused by smoking cigarettes that contained the most toxic form of asbestos.³⁹

3. Whether the trial court erred in admitting evidence of the total amount Defendants have spent on all experts--including those with no involvement with this case--while defending themselves against asbestos-related claims.⁴⁰

4. Whether the trial court erred in admitting, as an admission against interest, a highly prejudicial unauthenticated document.⁴¹

B. Scope of Review

"A trial judge's decision to admit or exclude evidence is reviewed for abuse of discretion." *Spencer*, 930 A.2d at 886.

C. Merits

1. The Trial Court Committed Prejudicial Error When It Admitted The "Gold Book," Which Is Unreliable Hearsay.

In a ruling adopted by Judge Johnston, Judge Slight's held that

³⁸ Preserved at *Rozenboom v. Aamco Transmissions, Inc.*, C.A. No. 05C-05-270 (Del. Super.), Dkt. No. 627 (Defendant DaimlerChrysler Corporation's Motion *In Limine* To Exclude the EPA Pamphlet "Guidance for Preventing Asbestos Disease in Auto Mechanics"); *In re Asbestos Litig. (Pate Trial Group)*, C.A. Nos. 05C-05-270, 05C-05-273, 05C-05-302, 05C-06-176 (Del. Super.), 5/9/06 am Tr. 80:17-88:22 (A533-A535) (Judge Slight's denial of motion to exclude, and preclude reference to, the Gold Book); 2/12/07 am Tr. 96:14-102:3 (A539-A545) (Judge Johnston's adoption of Judge Slight's ruling); 2/20/07 pm Tr. 58:1-10 (admission of Gold Book over Defendants' renewed objection) (A641).

³⁹ Preserved at 2/13/07 am Tr. 3:9-8:20 (A554-A559).

⁴⁰ Preserved at 2/15/07 am Tr. 61:14-63:13 (A575-A577).

⁴¹ Preserved at 2/12/07 am Tr. 108:22-110:23 (A546-A548).

"the [Gold Book] and the information contained in it can come in through [plaintiffs'] experts." *In re Asbestos Litig. (Pate Trial Group)*, C.A. Nos. 05C-05-270, 05C-05-273, 05C-05-302, 05C-06-176 (Del. Super.), 5/9/06 am Tr. 88:16-19 (A535). That was prejudicial error.

Plaintiff's counsel and Plaintiff's causation expert repeatedly cited the 1986 Gold Book as evidence that the EPA had "concluded" that friction products cause mesothelioma.⁴² Indeed, Plaintiff argued that the Gold Book was admissible precisely because it (purportedly) "tends to show that Defendants' asbestos-containing friction products caused Plaintiffs' injuries." Plf. Resp. to Defs. Mot. in Limine to Exclude the EPA Pamphlet (Dkt. No. 400), at 2 (emphasis added). The Gold Book, however, is unreliable, inadmissible hearsay that should not have been disclosed to the jury, much less admitted into evidence.

The Gold Book is a public information brochure; it is not a formal risk assessment and does not purport to be one. It does not reflect any study by the EPA, but instead relies exclusively on third-party sources (including a television show). The only epidemiologic study it cites, a 1970 study by McDonald, had been superseded even before the Gold Book was published. See n.45 *infra*. The Gold Book was not subject to peer review, or even public notice and comment, before its issuance. Significantly, when the EPA did later engage in formal rule-making and conduct an in-depth assessment of the issue, it specifically decided **not** to ban the use of asbestos in friction products. See *Asbestos, Manufacture, Importation, Processing and*

⁴² See, e.g., 2/13/07 pm Tr. 60:16-19 (A567) ("Q: And did the EPA[] in 1986 . . . conclude that asbestos such as the kind found in brakes can cause mesothelioma? A: Yes."), 107:1-12 (A573) ("In my opinion, . . . brake-repair workers, when exposed to asbestos, are at risk of developing the disease mesothelioma. And that's not just my conclusion. As we talked about earlier, . . . that's the conclusion of EPA."); 3/1/07 am Tr. 127:10-21 (A751) ("I made it as easy as the Gold Book, Guidance For Preventing Asbestos Disease Among Auto Mechanics. That[] sounds awfully similar to asbestos and brakes. And I go right into their book[] and I find it causes cancer.").

Distribution Prohibitions, 58 Fed. Reg. 58964, 58966 (Nov. 5, 1993).

It is clear that the Gold Book is not admissible under Delaware Rule of Evidence 803(18). That rule expressly provides that "treatises, periodicals or pamphlets . . . may not be received as exhibits," even if they are "established as a reliable authority" by an expert witness. DRE 803(18) (emphasis added).⁴³

Nor is the Gold Book admissible as a public record or report under any of the exceptions created by Delaware Rule of Evidence 803(8): the Gold Book does not set forth any EPA activities, let alone those that are "regularly conducted and regularly recorded"; it does not set forth "matters observed pursuant to duty imposed by law and as to which there was a duty to report"⁴⁴; and, given that the EPA did not conduct an independent investigation of friction products, the Gold Book does not set forth "factual findings resulting from an investigation made pursuant to authority granted by law." Thus, the Gold Book is not admissible under Rule 803(8) because it "represent[s] little more than opinions and conclusions drawn from existing research literature," *Marsee v. U.S. Tobacco Co.*, 639 F. Supp. 466, 470 (W.D. Okla. 1986), is "based on evidence from numerous non-official sources, many of whom obviously had no 'duty imposed by law' to report such information," *Wetherill v. Univ. of Chicago*, 518 F. Supp. 1387, 1390 (N.D. Ill. 1981), and therefore "lacks the indicia of reliability displayed by public records of factual events." *Hovarth v. Baylor Univ. Med. Center*, 704 S.W.2d 866, 870 (Tex. App. 1985).

Even if the Gold Book did satisfy one of the hearsay exceptions

⁴³ Indeed, it was on this basis that Judge Johnston refused to allow the jury to see the scientific studies upon which Defendants' experts relied. Cf. 3/2/07 am Tr. 4:10-23 (A756).

⁴⁴ Although Congress did require the EPA to conduct a study of asbestos in public buildings, it did not impose a duty on the EPA to study asbestos in friction products. Cf. 15 U.S.C. § 2653 (requiring EPA to conduct a study of asbestos in public buildings).

otherwise created by Rule 803(8), it would still be inadmissible under Rule 803(8)(E) because its "sources of information"--which include a television show (see PX 14, at 14 n.21 (A1057).)--"indicate lack of trustworthiness."⁴⁵ Moreover, even if the Gold Book were itself admissible, its contents are almost entirely hearsay within hearsay, and are thus inadmissible on that ground. See *United States v. Mackey*, 117 F.3d 24, 28 (1st Cir. 1997) ("hearsay statements by third persons . . . are not admissible under [the public records] exception merely because they appear within public records"); *CFTC v. Wilshire Invest. Mgmt. Corp.*, 407 F. Supp. 2d 1304, 1315 n.2 (S.D. Fla. 2005) ("Placing otherwise inadmissible hearsay statements by third-parties into a government report does not make the statements admissible.").

Finally, the Gold Book is not admissible under Delaware Rule of Evidence 703. Rule 703 allows an expert to offer an opinion based on inadmissible facts or data if, but only if, they are "reasonably relied upon by experts" in the field. The Gold Book does not satisfy this threshold criterion because it is simply a compendium of ill-supported and largely irrelevant assertions that includes no analysis

⁴⁵ Four of the five studies the Gold Book cites in support of observation that "mesothelioma has occurred among brake mechanics" are case studies, which are "universally regarded as an insufficient scientific basis for a conclusion regarding causation." *Hall*, 947 F. Supp. at 1411; cf. PX 14, at 2 & 14 nn.15-20 (A1046 & A1057). The sole epidemiological study cited, A.D. McDonald, et al., *Epidemiology of Primary Malignant Mesothelial Tumors in Canada*, 26 *Cancer* 914 (1970) (PDX 265; A1145-A1150), did not control for other exposures and did not evaluate the relative risk of mesothelioma across different occupations. Moreover, in a follow-up study that did control for other exposures and did calculate relative risks across occupations, the study's authors--in an article published six years before the Gold Book, but entirely ignored therein--specifically noted that "no increase in risk was found in garage mechanics, [who were] certainly exposed to chrysotile from brake linings." McDonald & McDonald, *Malignant Mesothelioma*, 46 *Cancer* at 1655 (DDX 209; (A1156)). In any event, the mere fact that "mesothelioma has occurred among brake mechanics" is both unsurprising and irrelevant. The question is not whether brake mechanics have contracted mesothelioma but whether they are more likely to contract mesothelioma than persons who are not exposed to friction products.

and was not subject to peer review. See 2/27/07 am Tr. 88:4-95:22 (A712-A719). The fact that the Gold Book was published by a governmental body does not cure its lack of scientific reliability. See, e.g., *In re Rezulin Prods. Liab. Litig.*, 309 F. Supp. 2d 531, 562 (S.D.N.Y. 2004) (rejecting expert opinion based on FDA report whose conclusion was contrary to peer-reviewed literature). Moreover, although Rule 703 allows an expert to base his or her opinion on inadmissible facts or data if they are "reasonably relied upon by experts" in the field, it does not render such otherwise inadmissible facts or data admissible. Cf. DRE 803(18).

Indeed, the rule does not even allow disclosure--let alone admission--of inadmissible evidence absent a specific determination by the court that its "probative value in assisting the jury to evaluate the expert's opinion substantially outweighs [its] prejudicial effect." DRE 703. Here, no such finding was made, and no such finding could be made given how Plaintiff used the Gold Book at trial. Devoid of any reliable epidemiologic basis and already implicitly repudiated by the EPA when it considered the matter and decided not to ban asbestos-containing friction products (*cf.* 58 Fed. Reg. at 58966), the Gold Book's probative value with respect to causation is nil. But Plaintiff and his causation expert repeatedly presented the Gold Book as evidence that the EPA had concluded that friction products cause mesothelioma. See, e.g., 2/13/07 pm Tr. 60:16-19, 107:1-12 (A567& A573); 3/1/07 am Tr. 127:10-21 (A751). Insofar as Plaintiff used the Gold Book to invoke the authority of a well-respected government agency in support of his scientifically discredited assertion--an assertion the agency itself had already abandoned--it is clear that the Gold Book's (nonexistent) probative value did *not* substantially outweigh its prejudicial effect. Absent such a finding, which is

designed "to insure against 'back-door' hearsay" (*Gannett Co. v. Kanga*, 750 A.2d 1174, 1188 (Del. 2000)), the contents of the Gold Book could not even be disclosed, let alone admitted into evidence under Rule 703.

2. The Trial Court Committed Prejudicial Error When It Precluded Defendants From Introducing Evidence That Plaintiff Was At An Increased Risk Of Mesothelioma As A Result Of Having Smoked Cigarettes Containing The Most Toxic Form Of Asbestos.

Plaintiff testified at trial (via his deposition) that he smoked Kent filtered cigarettes during the 1950s; indeed, he testified that Kent was his favorite brand of cigarettes during that period and that he smoked, on average, two to three packs a day. Grenier Depo. 2/28/06 pm Tr. 87:9-88:3 (A528). Despite Plaintiff's admission that he smoked Kent cigarettes, the trial court did not allow Defendants to cross-examine Plaintiff's experts on the medical significance of that fact. See 2/13/07 am Tr. 4:10-11 (A555); *id.* at 7:22 (A558). That was prejudicial error.

Had Defendants' intended cross-examination been allowed, the jury would have learned that, according to one of Plaintiff's experts, William Longo, people who smoked Kent cigarettes "were exposed to substantial amounts of crocidolite" and that the data "strongly suggest[] that there is an increased risk of mesothelioma among people who smoked these cigarettes." Longo, *Crocidolite Asbestos Fibers in Smoke from Original Kent Cigarettes*, 55 *Cancer Research* at 2235. This evidence, which the trial court excluded, was clearly material because it tended to support Defendants' theory that Plaintiff's mesothelioma was caused by Plaintiff's exposure to non-friction products.

The trial court precluded Defendants' cross-examination because Defendants could not prove to the court's satisfaction that the Kent cigarettes Plaintiff smoked had in fact utilized the crocidolite-

containing "micronite" filter. See 2/13/07 am Tr. 8:1 (A559). But that ruling was premised on both factual and legal error.

As an initial matter, the court was misled by Plaintiff's counsel into believing that "Kent made lots of different kinds of cigarettes" during the relevant period. *Id.* at 4:17-18 (A555). In fact, only one type of Kent cigarette was sold during the 1950s. See John C. Maxwell, Jr., *Historical Sales Trends in the Cigarette Industry: A Statistical Summary Covering 74 Years (1925-98)*, at 15.⁴⁶ And, as Longo would have testified, the Kent cigarette used the crocidolite-containing micronite filter "from the introduction of the brand into test markets in March 1952 through at least May 1956." Longo, 55 *Cancer Research* at 2232.

But, having been misinformed by Plaintiff's counsel, the court refused to allow Defendants' intended cross-examination unless Defendants could prove that it was "more likely than not that the cigarettes [Grenier] smoked during that time period were the ones with that filter." See 2/13/07 am Tr. 7:17-19 (A558). The court's imposition of that evidentiary precondition was legally incorrect. Defendants need only have a "good faith basis" for a particular line of cross-examination; proof by a preponderance of the evidence is not required. Indeed, "the good-faith-basis test is the prevailing test" in most if not all jurisdictions. *State v. Gillard*, 533 N.E.2d 272, 278 (Ohio 1988) ("a cross-examiner may ask a question if the examiner has a good-faith belief that a factual predicate for the question exists"), *abrogated on other grounds*, *State v. McGuire*, 686 N.E.2d

⁴⁶ As a market analyst's published compilation, the Maxwell Consumer Report is admissible under Delaware Rule of Evidence 803(17); a Court may also take judicial notice of the facts it reports under Delaware Rule of Evidence 201(b).

1112 (Ohio 1997).⁴⁷ Cf. *United States v. Katsougrakis*, 715 F.2d 769, 778 (2d Cir. 1983) (affirming preclusion of cross-examination when "counsel was unable to show a good faith basis for that line of questioning"). Not only is good faith a sufficient basis for cross-examination, but because the good faith standard is "flexible as well as lenient," it is satisfied by a proffer that "need not be exhaustive or particularly compelling." *Clayborne v. United States*, 751 A.2d 956, 963 & n.6 (D.C. 2000). Moreover, the proffer made to establish "a good-faith basis may rest on evidence that would not necessarily be admissible at trial." *Murphy v. State*, 4 S.W.3d 926, 931 (Tex. Crim. App. 1999).

This Court recognizes "the importance of cross-examination, which has been characterized as 'the greatest legal engine ever invented for the discovery of truth.'" *Gannon v. State*, 704 A.2d 272, 275 (Del. 1998) (quoting *California v. Green*, 399 U.S. 149, 158 (1970)). Although "[c]ross-examination of plaintiffs' experts as to other causation theories" may properly be excluded "absent a good-faith basis to believe those theories ha[ve] evidentiary support," *In re Air Disaster at Lockerbie Scotland*, 37 F.3d 804, 825 (2d Cir. 1994) (emphasis added), *abrogated in part on other grounds*, *Zicherman v. Korean Air Lines Co.*, 516 U.S. 217 (1996), in this case there was far more than a mere good-faith basis for Defendants' intended cross-examination of Plaintiffs' experts. Plaintiff admitted having smoked Kent cigarettes. See Grenier Depo. 2/28/06 pm Tr. 87:9-19 (A528); see also 2/13/07 am Tr. 4:14-16 (A555). Plaintiff further admitted that at least some Kent cigarettes "had asbestos in the filter." 2/13/07 am Tr. 4:18-19 (A555). Those concessions were ample to establish a

⁴⁷ In fact, "[i]n recognition of the exploratory nature of cross-examination, a number of jurisdictions dispense with any need for an offer of proof on cross-examination." 1 McCormick on Evidence § 29, at 134 n.14 (6th ed. 2006).

"good faith basis" for Defendants' intended cross-examination.⁴⁸

Although Maxwell's market data prove that only one type of Kent cigarette was sold during the 1950s, Defendants--who could not have anticipated Plaintiff's factual misrepresentation--did not have those data at hand during trial. Defendants, however, should not be penalized for having been unable, during the heat of trial, to present hard-to-find evidence that they should never have been required to produce in the first place, particularly when the court's demand that Defendants produce such evidence stemmed only from Plaintiff's mischaracterization of the historical record.

3. The Trial Court Committed Prejudicial Error When It Admitted Evidence Of The Total Amount Defendants Have Spent On All Experts--Including Those With No Involvement In This Case--While Defending Themselves Against Asbestos-Related Claims.

Over Defendants' objection, the trial court admitted evidence of how much Defendants have paid experts in the course of defending themselves against asbestos-related claims in this case and others. Of the \$19 million that Defendants have spent, \$5.6 million was paid to experts who did not testify in this trial. See page 16 *supra*. Moreover, much of the money paid to experts who did testify in this trial was paid to them for their work on other trials. See 2/16/07 pm Tr. 10:22-15:14 (A621-A626).

Evidence of how much money was paid to experts who had no involvement in this trial is irrelevant. Evidence of how much a *testifying* expert has been paid is arguably relevant, but *only* because "[f]ee arrangements may bear on the impartiality and, therefore, the credibility of an expert witness." *Burke v. State*, 484 A.2d 490, 499 (Del. 1984). Clearly, however, evidence of how much was paid to

⁴⁸ In testimony later excluded by the trial court, Plaintiff also testified that he "remembered" the micronite filter. Grenier Depo. 3/1/06 am 180:9-181:2 (A530-A531; cf. 2/22/07 am Tr. 9:8-22 (A673)).

experts who did not testify has no bearing on the credibility of those who did. Accordingly, the evidence of how much Defendants have spent on experts overall, including experts who did not testify in this case, was inadmissible under Delaware Rule of Evidence 402, which provides that "[e]vidence which is not relevant is not admissible."

Admission of the total amount Defendants have spent on all experts while defending themselves against all asbestos-related claims was not only irrelevant; it was also highly prejudicial. Plaintiff repeatedly invoked the \$19 million figure as evidence of potential bias. Yet that amount was falsely inflated by inclusion of payments made for services rendered by non-testifying experts who had no involvement in this case. Moreover, the fact that Defendants have in the aggregate spent a lot of money on experts is largely attributable to the fact that they--as surviving, non-bankrupt entities with pockets that plaintiffs may perceive as deep--have been sued in many cases. Clearly, the more cases in which Defendants are sued, the more Defendants will have to spend on experts. Yet the frequency with which a defendant has been sued has no bearing on the defendant's guilt or innocence. Furthermore, contrary to the negative inference Plaintiff sought to draw--namely, that the Defendants have attempted to buy a non-meritorious defense by enticing pliant experts to do their bidding--the sum Defendants have spent on experts may just as well evidence Defendants' concern for the implications of an incorrect adverse ruling predicated on scientifically unfounded claims.

There is no question that this irrelevant and prejudicial evidence could have influenced the jury. During the presentation of evidence, Plaintiff referred to the \$19 million figure repeatedly. *See, e.g.,* 2/15/07 am Tr. 81:4-8 (A586) ("Q. And, doctor, have you made over \$19 million as an expert? A. No, sir. Q. That's a

substantial amount of money, isn't it? A. Yes."). During closing, the \$19 million figure became a rhetorical drum that Plaintiff beat over and over to show, as Plaintiff's counsel told the jury, that Defendants cared more about buying a defense than showing up at trial. See, e.g., 3/1/07 am Tr. 52:5-6, 58:7-11, 66:18-20, 66:23-67:1, 73:23-74:3, 75:14-17, 76:3 (A728, A731, A733, A733-A734, A736-A737, A738, A739). Where, as here, "prejudicial evidence of marginal relevance" "merely serve[d] to inflame the passions of the jury," a new trial is warranted. *Floudiotis v. State*, 726 A.2d 1196, 1205 (Del. 1999).

4. The Trial Court Committed Prejudicial Error By Admitting An Unauthenticated Document As An Admission Against Interest.

Over Defendants' objection on the ground of lack of authentication, the trial court admitted a 1948 article that Plaintiff claims--but never showed--was authored by V.J. Castrop, a GM industrial hygienist. See 2/12/07 am Tr. 108:22-110:23 (A546-A548). A section of the article, published in the February 1948 issue of *National Safety News*, discusses possible consequences of exposure to asbestos dust during the manufacture of automotive brakes. PX 4, at 79 (A1039). Although the article concerned the *manufacturing* rather than the *servicing* of brakes, and identified *asbestosis* rather than *mesothelioma* as a possible danger, Plaintiff used the article at trial as evidence that GM was aware no later than 1948 of the danger allegedly posed by friction products to auto mechanics. See 2/15/07 am Tr. 63:23-71:8 (A577-A585); 2/26/07 pm Tr. 43:7-52:7 (A701-A710); 3/1/07 am Tr. 57:7-12 (A730). Insofar as the jury found GM, but not Ford, to have been negligent, it appears that the article had the desired effect. Cf. Dkt. No. 604, at 1 (A761).

The article was never properly authenticated. Although it purports to have been "condensed from a paper presented" by Castrop at

a 1947 conference (PX 4, at 20 (A1030)), it does not identify who "condensed" Castrop's presentation. It is therefore impossible to tell whether the statements about asbestos were in fact made by an employee of GM (Castrop) and thus admissible as a party admission.

Authentication is, under Delaware Rule of Evidence 901(a), a "condition precedent to admissibility" and it is well established that "[u]nder D.R.E. 901(a) the party offering an item for evidence bears the burden of presenting other 'evidence sufficient to support a finding that the matter in question is what its proponent claims.'" *Demby v. State*, 695 A.2d 1127, 1133 (Del. 1997). Here, Plaintiff offered no evidence, let alone sufficient evidence, to support a finding that the "condensed" article was either authored by Castrop or accurately reflects what Castrop presented at the 1947 conference. In fact, Castrop's original presentation, from which the article was purportedly "condensed," contained no reference to asbestos. Cf. V.J. Castrop, *Recognition and Control of Fume and Dust Exposure*, in 5 Transactions: 35th National Safety Congress (1947) (A1019-A1026). Although the trial court acknowledged that the article "may not be an accurate statement of what was said," it nonetheless admitted the article "as an admission against interest." 2/12/07 am Tr. 110:16-18 (A548). That was legal error.

The fact that the 1948 article appeared in a periodical does not obviate the need for authentication. Delaware Rule of Evidence 902(6) provides that "[p]rinted materials purporting to be . . . periodicals" are self-authenticating. But self-authentication under Rule 902(6) extends only to the fact that the printed material was published in the periodical in which it purportedly appeared; it does not establish the identity of the article's author and hence cannot authenticate the article as a party admission. As stated in the notes to the

identically worded federal rule, "[e]stablishing the authenticity of the publication may, of course, leave still open questions of authority and responsibility for items therein contained." Fed. R. Evid. 902(6) comm. note. "Authorship is different from authenticating the [periodical] itself." 5 Stephen A. Saltzburg, *et al.*, Federal Rules of Evidence Manual § 902.02[4] (9th ed. 2006). Precisely because "questions of authority to publish a particular item and responsibility for such an item may still be left open" even if "the authenticity of a publication" has been established under Rule 902(6), "the Rule does not by its terms establish that the indicated author of a newspaper story was in fact its author." 29A Am. Jur. 2d Evidence § 1192.

Here, there is no dispute that an article bearing Castrop's name was published in the February 1948 issue of National Safety News. But to be admissible as an admission against interest by GM, the article must in fact have been authored by a GM employee, in this case Castrop. There is no evidence that it was. On its face, the article purports to have been "condensed" from a presentation Castrop gave in 1947. But the relevant section of the 1948 article appears nowhere in Castrop's 1947 presentation. Indeed, Castrop's 1947 presentation does not even mention the word "asbestos." Plaintiff offered no explanation why an article that purportedly "condensed" a prior paper would contain a section that had not appeared in the original paper. Nor did Plaintiff offer any evidence that Castrop himself authored the new section. It may in fact have been inserted not by Castrop, but by an editor of National Safety News. Lacking any authentication of the identity of the author of the section at issue, the 1948 article should not have been admitted as a party admission.

V. THE TRIAL COURT GAVE AN ERRONEOUS INSTRUCTION THAT LIKELY CAUSED THE JURY TO DISREGARD CRITICAL EVIDENCE.

A. Question Presented

Whether the trial court erred in giving an instruction that likely caused the jury to disregard critical scientific evidence.⁴⁹

B. Scope of Review

An objected-to instruction is reviewed *de novo*. See *Chrysler Corp. v. Chaplake Holdings, Ltd.*, 822 A.2d 1024, 1034 (Del. 2003).

C. Merits

During deliberations, the jury asked, "Can we have any of the studies or published papers to review?" 3/2/07 am Tr. 3:9-10 (A755). The court answered, "No, these documents have not been admitted as evidence." *Id.* at 6:12-13 (A757). Defendants objected to the supplemental instruction on the ground that it might cause the jury to believe that none of the scientific studies' contents had been admitted even though portions had in fact been read into evidence by the expert witnesses. Defendants asked that the instruction be expanded to inform the jury that "scientific evidence is admitted through expert testimony." *Id.* at 7:18-19 (A758). The court declined to do so. *Id.* at 7:20-22 (A758).

To survive appeal, an instruction challenged at trial must be "reasonably informative and not misleading when read as a whole." *Chrysler*, 822 A.2d at 1034 (internal quotation marks omitted). But here the court's supplemental instruction was, at best, misleading. Delaware Rule of Evidence 803(18) clearly provides that "statements contained in published . . . periodicals . . . on a subject of . . . science . . . established as a reliable authority by . . . expert testimony" "may be read into evidence." That is, in fact, what happened here--numerous excerpts from scientific articles were read

⁴⁹ Preserved at 3/2/07 am Tr. 6:15-7:22 (A757-A758); Dkt. No. 534.

into evidence through expert witnesses. See, e.g., 2/15/07 pm Tr. 18:10-27:20; 27:21-29:14; 41:15-44:11; 53:8-54:20; 56:16-58:5 (A590-A599); (A599-A601); (A602-A605); (A606-A607); (A608-A610). While it is true that, pursuant to Rule 803(18), the articles themselves were not "received as exhibits," their excerpted contents were indeed "read into evidence." It was misleading for the court to inform the jury that the scientific studies were *not* in evidence when their relevant contents were in evidence.

Having been instructed that the scientific studies "have not been admitted as evidence," the jurors--who had previously been instructed that it would be "a violation of [their] sworn duty . . . to base a verdict on anything but the evidence" (3/1/07 am Tr. 14:17-19 (A724))--are likely to have believed that they were legally obligated to ignore the scientific studies precisely because the studies, according to the court, had not been "admitted as evidence." Indeed, it would be surprising if, under the court's supplemental instruction, the jury understood that it could consider any of the statements contained in those studies. Despite Defendants' timely request, the court never explained to the jury that it could, pursuant to DRE 803(18), consider any statements from those studies that had been "read into evidence."

Defendants' defense depended almost entirely on the scientific studies that had been placed into evidence through expert witnesses. As demonstrated by the verdict, which was contrary to the overwhelming weight of the epidemiologic evidence, the court's supplemental instruction likely caused the jurors to disregard that evidence. This Court "will reverse if the alleged deficiency in the jury instructions undermined the jury's ability to intelligently perform its duty in returning a verdict." *Culver v. Bennett*, 588 A.2d 1094, 1098 (Del. 1991). Under that standard, reversal is warranted here.

VI. PLAINTIFF'S INFLAMMATORY SUMMATION ENTITLES DEFENDANTS TO A NEW TRIAL.

A. Questions Presented

1. Whether Plaintiff's reading during summation of a highly prejudicial document not in evidence entitles Defendants to a new trial.⁵⁰

2. Whether Plaintiff's repeated reference to the amount of money spent by Defendants on experts in other cases, as well as this case, entitles Defendants to a new trial.⁵¹

3. Whether counsel's reference to Plaintiff's family standing at his grave entitles Defendants to a new trial.⁵²

4. Whether the cumulative effect of Plaintiff's inflammatory statements during summation entitles Defendants to a new trial.⁵³

B. Scope of Review

This Court "review[s] the trial judge's denial of a Motion for a New Trial for an abuse of discretion." *Burkett-Wood v. Haines*, 906 A.2d 756, 764 (Del. 2006).

C. Merits

Relying on "facts" that were not in evidence, and on irrelevant evidence that should not have been admitted, Plaintiff gave an inflammatory closing argument that appealed to the jury's passion and sympathy. Because Plaintiff's improper argument "raise[s] a doubt as to whether" Defendants "had the fair trial to which [they are] entitled," Defendants deserve a new trial. *Massey-Ferguson, Inc. v. Wells*, 421 A.2d 1320, 1324 (Del. 1980).

⁵⁰ Preserved at 3/1/07 am Tr. 132:5-19 (A753); Defs. Mot. for a New Trial (Dkt. No. 534), at 12-13.

⁵¹ Preserved at 3/1/07 am Tr. 131:5-18 (A752); Dkt. No. 534, at 12-13.

⁵² Preserved at 3/1/07 am Tr. 131:19-132:4 (A752-A753); Dkt. No. 534, at 12-13.

⁵³ Preserved at Dkt. No. 534, at 13-14.

1. Plaintiff's Reading During Closing Argument Of A Highly Prejudicial Document Not In Evidence Entitles Defendants To A New Trial.

Although it was not in evidence, during summation Plaintiff read to the jury the title of and excerpts from "Abuse of Epidemiology: Automobile Manufacturers Manufacture a Defense to Asbestos Liability." Reading from the article while projecting it on an overhead screen, Plaintiff told the jury that the article describes "how asbestos line[d] brake manufacturers have corrupted medical literature to escape liability" and "analyz[es] studies funded by these companies to enable them to claim that work with [as]best[os] brake linings never causes mesothelioma." 3/1/07 am Tr. at 125:3-10 (A750).

When Defendants objected to Plaintiff reading from a document not in evidence, the trial court asked Plaintiff's counsel whether he had used the article during cross-examination. Plaintiff's counsel answered: "Absolutely, Your Honor. I read exactly the title and the highlighted portion in cross-examination." *Id.* at 132:14-17 (A753). That was false: the document had never been read to the jury. But, relying on counsel's false statement, the court overruled the objection. See *id.* at 132:18-19 (A753). That was error (and, so long as the document had not been admitted into evidence, would have been error even if it had actually been used during cross-examination).

Arguing purported "facts" not in evidence--particularly inflammatory ones like those Plaintiff presented to the jury--is improper. As this Court has recognized, "it is improper for counsel to make a factual statement which is not supported by evidence." *DeAngelis v. Harrison*, 628 A.2d 77, 80 (Del. 1993) (reversing denial of a new trial where opposing counsel made improper remarks during closing argument). Here, Plaintiff's counsel used the article that was not in evidence to malign the Defendants and their experts without

basis, suggesting that automobile manufacturers like Defendants had "corrupted the medical literature" and bought the studies on which Defendants' experts had relied. See 3/1/07 am Tr. 124:23-125:1 (A749-A750) ("When we talk about science in this case I show this."). But, "it is improper . . . to comment on a witness' credibility based on . . . evidence not in the record." *DeAngelis*, 628 A.2d at 80.

The rule in Delaware is clear. When, as in this case, counsel engages in improper argument, "the trial court is *obliged* to act firmly with curative instructions even where no objection is forthcoming until after summations." *Id.* (citing *Massey-Ferguson*, 421 A.2d at 1324) (emphasis added). But here, in clear derogation of its duty to ensure a fair trial, the trial court took no action to cure Plaintiff's improper argument.

"In gauging the effect of counsel's improper comment," this Court weighs "(1) the closeness of the case, (2) the centrality of the issue affected by the error, and (3) the steps taken in mitigation." *DeAngelis*, 628 A.2d at 81 (citing *Hughes v. State*, 437 A.2d 559, 571 (Del. 1981)). Under this standard, Defendants are entitled to a new trial: no steps were taken in mitigation; counsel's argument--directed at the epidemiological studies relied upon by Defendants in support of their alternative causation defense--went to the central issue in the case; and, given the extensive epidemiological evidence showing that auto mechanics are at no increased risk of contracting mesothelioma, the case was, at the very least, a close one.

Recognizing that the three-prong test adopted in *Hughes* may not adequately ensure a fair trial, this Court also considers whether counsel's improper statements are "repetitive errors that require reversal because they cast doubt on the integrity of the judicial process." *Hunter v. State*, 815 A.2d 730, 733 (Del. 2002) (reversing

denial of new trial based on improper argument). Here, Plaintiff's improper argument casts doubt on the integrity of the judicial process in two ways. First, by referring to "facts" not in evidence and then relying on those "facts" to undermine the credibility of Defendants' witnesses, Plaintiff's summation repeats two types of argument that this Court specifically identified as improper in *DeAngelis*. Cf. 628 A.2d at 80. As this Court held in *Hunter*, repetition of arguments that "have been specifically identified as improper in past decisions" mandates reversal. 815 A.2d at 733. Second, Plaintiff's improper argument casts doubt on the integrity of the judicial process because, when challenged, Plaintiff induced the court to overrule Defendants' timely objection through a blatant misrepresentation of the record. Cf. 3/1/07 am Tr. 132:14-19 (A753). Few things cast more doubt on the integrity of the judicial process than a party securing a favorable ruling by misrepresenting the record to the court.

Because Plaintiff's improper argument based on supposed "facts" not in evidence "was 'significantly prejudicial,'" *DeAngelis*, 628 A.2d at 80 (quoting *Shively v. Klein*, 551 A.2d 41, 44 (Del. 1988)), and compromised "the integrity of the judicial process," *Hunter*, 815 A.2d at 738, Defendants are entitled to a new trial.

2. Plaintiff's Repeated Reference To The Amount Of Money Spent By Defendants On Experts In Other Cases, As Well As This Case, Entitles Defendants To A New Trial.

During closing argument, Plaintiff's counsel, over Defendants' objection, referred repeatedly to the total amount Defendants have spent on experts while defending themselves against asbestos-related claims.⁵⁴ Even if the total amount Defendants have spent on experts in

⁵⁴ The trial court overruled Defendants' objection on the ground that there had already been "so much discussion on that." 3/1/07 am Tr. 131:14-16 (A752). But Plaintiff's earlier misuse of the irrelevant and prejudicial \$19 million figure does not excuse--indeed, it exacerbates--his further improper use of that evidence in closing.

this case and others were relevant (*but see* pages 54-56 *supra*), Plaintiff put the figure to improper use during closing argument.

As an initial matter, despite this Court's repeated admonition that counsel "should not . . . misrepresent the evidence presented at trial," *Hunter*, 815 A.2d at 735 (citing *Morris v. State*, 795 A.2d 653 (Del. 2002)), Plaintiff mischaracterized what the \$19 million figure represented, wrongly stating that it was what Defendants had spent in this case alone. See 3/1/07 am Tr. 58:7-12 (A731) (describing this as "a case where Ford and General Motors feel it's appropriate to invest 19 million dollars in their defense"). That was untrue. As noted above (*see* page 54 *supra*), a substantial portion of the money was spent on experts who were not involved with this case at all, and a significant portion of the remainder, although paid to experts who appeared here, was paid to them for their work in other cases. By overstating the amount that had been paid to Defendants' testifying experts, Plaintiff's mischaracterization manufactured the false impression that the experts were likely biased.

Plaintiff used the mischaracterized \$19 million figure to inflame the jury's passion in closing, referring to the figure seven times explicitly and several more times obliquely. See 3/1/07 am Tr. 52:5-6, 58:7-12, 66:18-20, 66:23-67:1, 73:21-74:2, 75:14-17, 76:3 (A728, A731, A733, A733-A734, A736-A737, A738, A739); *see also id.* 53:10-11, 68:16, 74:13-14 (A729, A735, A737). There is no need to speculate as to why Plaintiff referred to the \$19 million figure so often; Plaintiff's counsel himself explained to the jury that "the reason I made so much deal about the 19 million dollars is because you should see how little they care about being in trial but how much they care about buying a defense." 3/1/07 am Tr. 75:14-17 (A738). The incessant repetition of the misleading \$19 million figure, and the

related suggestion that Defendants place a low value on human life, betray a "'studied purpose' on the part of counsel to inflame or prejudice the jury improperly." *McNally v. Eckman*, 466 A.2d 363, 375 (Del. 1983) (quoting *Buschlen v. Ford Motor Co.*, 310 N.W.2d 8, 12 (Mich. App. 1981)), *overruled on other grounds, Wright v. State*, 2008 WL 343638 (Del. Sup. Feb. 7, 2008).

This Court has recognized that "[a]ny effort to mislead the jury or appeal to its bias or prejudice is inappropriate." *DeAngelis*, 628 A.2d at 80. Where, as here, timely objection is made, the trial court is "obliged to act firmly with curative instructions." *Id.* Because the court failed to do so in this instance, a new trial must be held.

3. Counsel's Reference To Plaintiff's Family Standing At His Grave Entitles Defendants To A New Trial.

Though warned by the court that he represented Plaintiff alone, and not Plaintiff's family (see 3/1/07 am Tr. 12:2-18 (A723)), Plaintiff's counsel referred to "the plaintiffs"--plural--during closing argument. 3/1/07 am Tr. 77:2 (A740). He told the jury: "plaintiffs[] are not looking for one iota of money for sympathy" because "the family will get all the sympathy they need when they stand at Roland Grenier's grave site after this cancer kills him." 3/1/07 am Tr. 77:2-7 (A740).

Statements by counsel that "evoke[] the image of [plaintiff's] children crying at [his] graveside" are "calculated to prejudice the defendants." *Edwards v. Sears, Roebuck & Co.*, 512 F.2d 276, 285-86 (5th Cir. 1975). The prejudice that flowed from counsel's objected-to comment was compounded by another improper reference counsel made to Plaintiff's family. Immediately after noting that neither Ford nor GM had a corporate representative present in the courtroom, Plaintiff's counsel told the jury: "But Rick Grenier," Plaintiff's son, is "sitting right here, right there, he's been here with us the entire

time. Balance that." 3/1/07 am Tr. 58:7-15 (A731).⁵⁵ But "the fact that family members were in the gallery is not evidence and should not have been the subject of comment before the jury." *State v. Brown*, 2007 WL 1152689, at *6 (Del. Super. Apr. 17, 2007).

Rather than brush aside Defendants' objection to Plaintiff's improper argument, the trial court should, at minimum, have issued a curative instruction.⁵⁶ See *DeAngelis*, 628 A.2d at 80. Because it did not, Defendants are entitled to a new trial.

4. The Cumulative Effect Of Plaintiff's Inflammatory Statements During Closing Argument Entitles Defendants To A New Trial.

When a party challenges improper remarks made during summation, this Court's "analysis includes a review of both the statements individually and their cumulative impact." *Trump v. State*, 753 A.2d 963, 969 (Del. 2000). Here, even if the many instances of improper argument did not require a new trial when considered in isolation, their cumulative effect warrants a new trial. See *State v. Savage*, 2002 WL 187510, at *5 (Del. Super. Jan. 25, 2002) ("While individually these statements may not rise to the level of reversible error, cumulatively, they altered the outcome of the trial."). United by a common theme, Plaintiff's various improper comments reinforced each other. Taken together, they appealed to the jury's passion and prejudice by depicting Defendants--without factual substantiation--as callous corporations willing and able to buy a defense that lacks scientific merit.

⁵⁵ Defendants did not specifically object to the reference to Plaintiff's son; that particular comment, when considered in isolation, is therefore subject to plain error review. See *Med. Ctr. of Delaware, Inc. v. Loughheed*, 661 A.2d 1055, 1060 (Del. 1995).

⁵⁶ The trial court overruled Defendants' objection to the graveside comment, finding, contrary to precedent (*cf. Edwards*, 512 F.2d at 285-86), that it was "not inappropriate for argument in a case where someone has contracted a fatal illness allegedly as a result of the acts of defendants." 3/1/07 am Tr. 132:1-4 (A753).

VII. THE CUMULATIVE EFFECT OF THE VARIOUS ERRORS ENTITLES DEFENDANTS TO A NEW TRIAL.

A. Question Presented

Whether the cumulative effect of the numerous errors at trial entitles Defendants to a new trial.⁵⁷

B. Scope of Review

"[W]here there are several errors in a trial, a reviewing court must also weigh the cumulative impact to determine whether there was plain error from an overall perspective." *Michael v. State*, 529 A.2d 752, 764 (Del. 1987).

C. Merits

This Court recognizes that the cumulative effect of several errors may warrant reversal even if no particular error taken alone requires reversal. *See, e.g., Robelen Piano Co. v. DiFonzo*, 169 A.2d 240, 248 (Del. 1961) ("Without stating whether or not, in our opinion, any one of these errors standing alone carries with it sufficient prejudice to require the award of a new trial, we are of the opinion that cumulatively they amount to prejudice and, consequently, a new trial must be awarded."); *see also Michael*, 529 A.2d at 764. Here, even if (contrary to fact) no particular error alone required reversal, the cumulative effect of the various errors identified above created sufficient prejudice to warrant a new trial.

Each of the separate errors discussed above bolstered Plaintiff's claim that his mesothelioma was caused by exposure to Defendants' friction products and undermined Defendants' contrary contention that his mesothelioma was caused by exposure to non-friction products. The error of the *Daubert* decision, which allowed Plaintiff to present unreliable evidence that friction products cause mesothelioma, was

⁵⁷ The issue of cumulative error was preserved at the places previously cited with respect to the individual errors. *See nn.27, 32, 34, 38, 39, 40, 41, 49, 50, 51, 52 & 53 supra.*

compounded by admission of the Gold Book and preclusion of Defendants' cross-examination on the effect of Plaintiff having smoked asbestos-laden Kent cigarettes. Those erroneous evidentiary rulings in turn were aggravated both by the court's erroneous jury instruction, which likely caused the jury to disregard much of Defendants' scientific evidence, and by the court's failure to issue a curative instruction when Plaintiff's counsel made improper comments during summation that were designed to inflame the jury's passion. Plaintiff's inflammatory closing, during which he falsely told the jury that he had produced all evidence of his exposure to non-friction products, was in turn retroactively sanctioned by the trial court's erroneous denial of a new trial despite Plaintiff's concealment of his claim against H-W and belated revelation of his claim against USG, each of which constitutes an admission that his mesothelioma was, at least in part, caused by his meaningful exposure to non-friction products. Because the various errors reinforce one another, their prejudicial effect is, in the aggregate, even greater than the (already substantial) sum of that which flowed from the individual errors viewed in isolation. "[C]umulatively they amount to prejudice and, consequently, a new trial must be awarded." *Robelen Piano*, 169 A.2d at 248.

CONCLUSION

For the reasons set forth above, judgment should be entered for Defendants or, in the alternative, a new trial should be ordered.

Respectfully submitted,

/s/ Christian J. Singewald

Christian J. Singewald (#3542)
White & Williams LLP
824 North Market Street, Suite 902
P.O. Box 709
Wilmington, DE 19899
(302) 654-0424

Eileen Penner
Andrew Tauber
Mayer Brown LLP
1909 K Street, N.W.
Washington, DC 20006
(202) 263-3000

*Attorneys for Appellants
General Motors Corporation and Ford Motor Company*

Dated: March 18, 2008