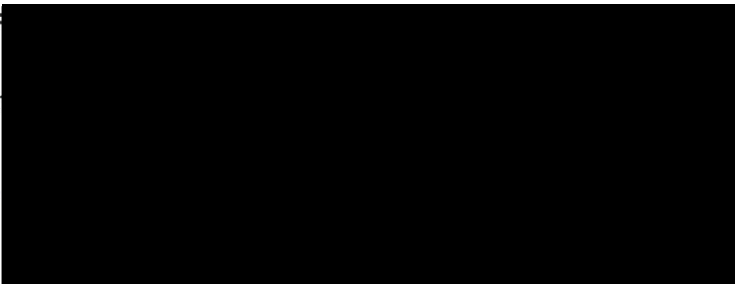


Committee on Energy and Commerce
U.S. House of Representatives
 Witness Disclosure Requirement - "Truth in Testimony"
 Required by House Rule XI, Clause 2(g)

| | | |
|--|-----|--|
| 1. Your Name: <i>James M. Tour</i> | | |
| 2. Are you testifying on behalf of the Federal, or a State or local government entity? | Yes | No <input checked="" type="checkbox"/> |
| 3. Are you testifying on behalf of an entity that is not a government entity? | Yes | No <input checked="" type="checkbox"/> |
| 4. Other than yourself, please list which entity or entities you are representing: | | |
| 5. Please list any Federal grants or contracts (including subgrants or subcontracts) that you or the entity you represent have received on or after October 1, 2011: <i>See attached</i> | | |
| 6. If your answer to the question in item 3 in this form is "yes," please describe your position or representational capacity with the entity or entities you are representing: | | |
| 7. If your answer to the question in item 3 is "yes," do any of the entities disclosed in item 4 have parent organizations, subsidiaries, or partnerships that you are not representing in your testimony? | Yes | No |
| 8. If the answer to the question in item 3 is "yes," please list any Federal grants or contracts (including subgrants or subcontracts) that were received by the entities listed under the question in item 4 on or after October 1, 2011, that exceed 10 percent of the revenue of the entities in the year received, including the source and amount of each grant or contract to be listed: | | |
| 9. Please attach your curriculum vitae to your completed disclosure form. | | |

Signature



Date:

7-28-14

JAMES M. TOUR, Ph.D.

T. T. and W. F. Chao Professor of Chemistry
Professor of Computer Science
Professor of Materials Science and NanoEngineering

Rice University, Smalley Institute for Nanoscale Science and Technology, MS-222
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Phone: 713-348-6246 Fax: 713-348-6250
Email: tour@rice.edu
Homepage: www.jmtour.com

Research Areas

General: green carbon research, graphene, organic chemistry, nanomedicine, nanotechnology, materials science, polymer chemistry, K-12 educational outreach.

Specific: Tour's scientific research areas include nanoelectronics, graphene electronics, silicon oxide electronics, carbon nanovectors for medical applications, green carbon research for enhanced oil recovery and environmentally friendly oil and gas extraction, graphene photovoltaics, carbon supercapacitors, lithium ion batteries, CO₂ capture, water splitting to H₂ and O₂, water purification, carbon nanotube and graphene synthetic modifications, graphene oxide, carbon composites, hydrogen storage on nanoengineered carbon scaffolds, and synthesis of single-molecule nanomachines which includes molecular motors and nanocars. He has also developed strategies for retarding chemical terrorist attacks. For pre-college education, Tour developed the *NanoKids* concept for K-12 education in nanoscale science, and also *Dance Dance Revolution* and *Guitar Hero* science packages for elementary and middle school education: *SciRave* (<http://www.scirave.org>) which later expanded to Stemscoapes-based *SciRave* (<http://stemscoapes.com/scirave/>). The *SciRave* program has risen to be the #1 most widely adopted program in Texas to complement science instruction, and it is currently used by over 450 school districts and 40,000 teachers with over 1 million student downloads.

Publications

Tour has over 500 research publications and over 70 patents, with an H-index = 100 (89 by ISI Web of Science) with total citations = 50,000 (Google Scholar). Tour was named among "The 50 Most Influential Scientists in the World Today" by TheBestSchools.org in 2014, and recipient of the Trotter Prize in "Information, Complexity and Inference" in 2014. He was named "Scientist of the Year" by *R&D Magazine*, 2013.

Education

- Stanford University, National Institutes of Health Postdoctoral Fellow, Organic Chemistry, 1987-88 with Barry M. Trost

- University of Wisconsin, Postdoctoral Fellow, Organometallic Chemistry, 1986-87 with Barry M. Trost
- Purdue University, Ph.D., Organic Chemistry, 1986 with E. Negishi
- Syracuse University, B.S., Chemistry, 1981

Professional Experience

- Department of Commerce, Emerging Technology and Research Advisory Committee, 2008 to 2011
- NanoJTech Consultants, LLC, Founder, 2007 to present.
- RJAC-10, LLC, Co-Founder, 2007
- Defense Science Board Chem/Nano Study Section, 2007
- MD Anderson Cancer Research Center's Competitive Grant Renewal Board, 2007-present
- Ariel Ministries, Board of Directors, 2006 to 2012
- LUMS School of Science and Engineering, Lahore Pakistan, Chemistry Search Committee, 2006 to present
- Carbon Nanotechnology Laboratory, Director, 2005 to 2007
- NanoComposites Inc., Co-Founder, 2004 to 2012
- *Chemical Reviews*, American Chemical Society, Editorial Advisory Board, 1999 to 2002.
- T. T. and W. F. Chao Professor of Chemistry, Professor of Mechanical Engineering and Materials Science, and Professor of Computer Science, Rice University, Smalley Institute for Nanoscale Science and Technology, Houston, Texas, 1999 to present
- Adjunct Professor, Rice University, Department of Chemistry and Center for Nanoscale Science and Technology, Houston, Texas, February 1999 to May 1999
- California Molecular Electronics Corporation, Technical Advisory Committee, August 1998 to November 1999
- National Defense Science Study Group, 1997 to 1999
- Governor's Mathematics and Science Advisory Board for South Carolina, 1996 to 1998
- Guy F. Lipscomb Professor of Chemistry, University of South Carolina, Columbia, SC, 1996 to 1999
- National Science Foundation, Materials Research Centers Advisory Committee, April 1996 and February 1997
- National Science Foundation, CAREER Program Advisory Committee, March 1995
- Visiting Scholar, Department of Chemistry, Harvard University, while on sabbatical leave from the University of South Carolina, Fall 1994
- Professor, Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC, August 1994 to 1996
- Associate Professor, Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC, August 1992 to August 1994
- Associate Director of the American Chemical Society, Polymer Division, Materials Science Secretariat, 1991 to 1995

- Assistant Professor, Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC, August 1988 to August 1992
- National Institutes of Health Postdoctoral Fellow, Department of Chemistry, Stanford University, with Professor Barry M. Trost, 1987 to 1988
- Postdoctoral Fellow, Department of Chemistry, University of Wisconsin, with Professor Barry M. Trost, 1986 to 1987
- Graduate Student, Department of Chemistry, Purdue University, with Professor Ei-ichi Negishi, 1981 to 1986
- Undergraduate Student, Department of Chemistry, Syracuse University, 1977 to 1981

Awards and Honors

- Lady Davis Visiting Professor, Hebrew University, June 2014.
- Tour was named among "The 50 Most Influential Scientists in the World Today" by TheBestSchools.org in 2014.
- Recipient of the Trotter Prize in "Information, Complexity and Inference" in 2014.
- Named "Scientist of the Year" by *R&D Magazine*, 2013.
- George R. Brown Award for Superior Teaching, Rice University, 2012.
- Won the *ACS Nano* Lectureship Award from the American Chemical Society, 2012.
- Lady Davis Visiting Professor, Hebrew University, June 2011.
- Fellow of the American Association for the Advancement of Science (AAAS), 2009.
- Ranked one of the Top 10 chemists in the world over the past decade, by a Thomson Reuters citations per publication index survey, 2009.
- Distinguished Alumni Award, Purdue University, 2009.
- Houston Technology Center's Nanotechnology Achievement Award, 2009
- Feynman Prize in Nanotechnology, 2008
- NASA Space Act Award, 2008
- Arthur C. Cope Scholar Award from the American Chemical Society, 2007
- George R. Brown Award for Superior Teaching, Rice University, 2007
- *Small Times* Magazine's Innovator of the Year Award, 2006
- *Nanotech Briefs* Nano 50 Innovator Award, 2006
- Alan Berman Research Publication Award, Department of the Navy, 2006
- American Chemical Society's #1 Most Accessed Journal Article in 2005, "Directional Control in Thermally Driven Single-Molecule Nanocars"
- American Chemical Society, Southern Chemist of the Year Award 2005
- Honda Innovation Award–NanoCars, 2005
- Distinguished Faculty Associate, Hanszen College, Rice University, 1999-2000
- Russell Research Award in Science, Mathematics and Engineering, Univ. South Carolina, 1997
- Abbott Distinguished Lecturer, Colorado State Univ., March 1997
- Weissberger-Williams Lecturer, Eastman Kodak Corporation, Rochester, NY, November 1995
- Exxon Educational Foundation Research and Training Award, 1994

- National Science Foundation Presidential Young Investigator Award in Polymer Chem., 1991-96
- Office of Naval Research Young Investigator Award in Polymer Chemistry, 1989-92
- IBM Corporation, One-Week Visiting Lecturer, Polymer Division, Almaden Research Center, June 1988
- National Institutes of Health Postdoctoral Fellow, 1987-88
- IBM Corporation Full Graduate Fellowship in Polymer Chemistry, Purdue University 1985-86
- Celanese Corporation Graduate Fellowship in Chemistry, Purdue University, 1981-82
- American Institute of Chemists Award, 1981
- Bachelor of Science, *Cum Laude*, Syracuse University, 1981
- George Wiley Award in Organic Chemistry, 1979

Category: Federal Awards
Investigator: Tour, James Mitchell
PI Status: PI

| Rice University Fund # | Project Start | Project End | Sponsor Award Date | Award Amount | Sponsor | Passthrough Agency | Award # | Title |
|------------------------|---------------|-------------|--------------------|--------------|---|--|------------------|--|
| R18250 | 7/1/2013 | 6/30/2017 | 7/24/2013 | \$25,726 | Department of Veteran's Affairs | | IPA | Samuel, Errol IPA: Carbon black induced activation of lung antigen presenting cells (APCs) |
| R18500 | 6/15/2014 | 6/14/2019 | 5/22/2014 | \$165,000 | DOD: Air Force Office of Scientific Research | | FA9550-14-1-0111 | Marriage of Top-Down Lithography to Bottom-Up Chemistry Edge Control in Graphene Nanoribbons |
| R18240 | 7/1/2013 | 6/30/2017 | 7/24/2013 | \$16,088 | Department of Veteran's Affairs | | IPA | Carbon Black Induced Activation of Lung Antigen Presenting Cells (APCs) |
| R70930 | 4/1/2014 | 3/31/2016 | 3/25/2014 | \$50,040 | Baylor College of Medicine | National Institutes of Health (NIH) | 101902245 | Augmenting Carbon Nanoparticles as Novel Antioxidants for Ischemic Stroke |
| R70630 | 9/1/2012 | 7/31/2015 | 10/5/2012 | \$117,138 | Baylor College of Medicine | National Institutes of Health (NIH) | 101688506 | Novel Nano Anti-Oxidants as a pre-Clinical Treatment for NAFLD |
| R7E430 | 9/30/2012 | 9/29/2014 | 11/15/2012 | \$178,882 | University of Texas Health Science Center-Houston | DOD: US Army Medical Research Acquisition Activity | 0009239A | Targeted Riluzole Delivery by Antioxidant Nanovectors for Treating Amyotrophic Lateral Sclerosis |
| R74940 | 3/15/2013 | 5/31/2014 | 6/20/2013 | \$53,555 | Baylor University | National Science Foundation (NSF) | | Enhanced Optoelectronic Devices Through Integration of Single-Layer Graphene |
| R17130 | 3/11/2011 | 9/30/2013 | 3/10/2011 | \$125,000 | Sandia National Laboratories | | 1100745 | Synthesis of Heteroatom-Substituted NanoCarbon Materials |
| R3C610 | 9/1/2010 | 8/31/2014 | 8/16/2010 | \$790,000 | National Science Foundation (NSF) | | CHE-1007483 | Synthesis, Fluorescence Imaging and Tracking of Inherently Fluorescent Single-Molecule Nanocars |
| R7D610 | 5/1/2010 | 1/31/2011 | 7/26/2010 | \$33,125 | Privatran | DOD: Air Force Office of Scientific Research | | STTR Phase 1: Advanced Memristor Materials and Architectures |
| R7Z910 | 11/1/2009 | 8/31/2012 | 4/5/2010 | \$20,000 | Baylor College of Medicine | National Institutes of Health (NIH) | 1012166066 | ARRA/NIH: Diabetes Endocrinology Research Center: PILOT PROJECT 4 |

Category: Federal Awards
Investigator: Tour, James Mitchell

PI Status: PI

| Rice University Fund # | Project Start | Project End | Sponsor Award Date | Award Amount | Sponsor | Passthrough Agency | Award # | Title |
|------------------------|---------------|-------------|--------------------|--------------|--|-----------------------------------|------------------|--|
| R16590 | 8/1/2009 | 7/31/2014 | 7/20/2009 | \$750,000 | DOD: Air Force Office of Scientific Research | | FA9550-09-1-0581 | Light-Weight Low-Loss Dielectric Polymer Composites Containing Carbon Nanostructures |
| R16220 | 8/1/2008 | 7/31/2013 | 7/11/2008 | \$730,602 | DOD: US Army Medical Research Acquisition Activity | | W81XWH-08-2-0143 | Traumatic Brain Injury Multidisciplinary Research Consortium |
| R74580 | 9/1/2008 | 8/31/2014 | 10/3/2008 | \$290,000 | Pennsylvania State University | National Science Foundation (NSF) | 3740-RU-NSF-0404 | Center for Nanoscale Science |
| R3A730 | 6/15/2007 | 5/31/2012 | 6/11/2007 | \$1,170,000 | National Science Foundation (NSF) | | ECCS-0708765 | NIRT: Synthesis, Actuation, and Control of Single-Molecule Nanocars |