

CURRICULUM VITAE

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EDUCATION

1996 Ph.D. in Physics, Institute of Atomic Physics (Romania)

1989 B.S. in Physics, University of Bucharest (Romania)

POSITIONS

2008-present Assistant Professor – Joint Appointment, Department of Biomedical Engineering, The Texas A&M University, College Station, TX.

2006-present Assistant Professor – Tenure Track, Department of Systems Biology & Translational Medicine, The Texas A&M Health Science Center, College Station, TX.

2005-2006 Research Assistant Professor - Department of Systems Biology & Translational Medicine, The Texas A&M Health Science Center, College Station, TX.

2001-present Co-director of The Core Imaging Facility of the Department of Systems Biology & Translational Medicine, The Texas A&M Health Science Center, College Station, TX.

2001-2005 Postdoctoral Research Associate, Department of Medical Physiology, The Texas A&M University System Health Science Center, College Station, TX.

2000-2001 Postdoctoral Research Associate, Chemistry Dept, Texas A&M University, College Station, TX.

1999-2000 Postdoctoral Research Associate, Bioengineering Dept, Rice University, Houston, TX.

1998-1999 Senior Thin Film Engineer, Denton Vacuum LLD, Moorestown, NJ.

1996-1998 Senior Scientist III, Solid State Quantum Electronics Laboratory, Institute of Atomic Physics, Bucharest, Romania.

1990-1996 Research Scientist, Thin Film Optics Group, Laboratory of Laser Active Media & Interaction of Radiation with Matter, Institute of Atomic Physics, Bucharest, Romania.

REVIEW PANELS, COMMITTEES & PROFESSIONAL ACTIVITIES

Review panels

2010 NSF SITE Review Chair - Center for Biophotonics Science and Technology, University of California - Davis, Sacramento, CA

2010 NSF Ad-hoc Reviewer - Chemistry of Life Processes (CLP) Program

2009-2010 NSF Ad-hoc Reviewer – Major Research Instrumentation (MRI) Program

2009 NSF Ad-hoc Reviewer – Molecular & Cell Biology (MCB) Program

2009 ZonMw - The Netherlands Organization for Health Research and Development, Investment in the scientific infrastructure, External reviewer

2009 NSF Mathematical & Physical Sciences- Molecular & Cell Biology (MPS-MCB) Joint Review Panel - member

2008-2009 NSF SITE Review Panel member- Center for Biophotonics Science and Technology, University of California - Davis, Sacramento, CA

2008 NSF CAREER Review Panel member - Mathematical & Physical Sciences (MPS)

Committees

- 2010-2013 Senator, College of Medicine Basic Sciences Caucus, Texas A&M Health Science Center
2010-present Member of the Graduate Admissions Committee, College of Medicine, TAM-HSC
2008-present Member of Summer Research Program Committee, College of Medicine, TAM-HSC, College Station, TX
2007-2008 Member of Departmental Search Committees for Faculty Positions in Imaging and Systems Biology
2006-present Member of the Space Departmental Committee
2006-present Member of the Imaging Departmental Committee

Professional Activities

- 2008-present Member of the Graduate Faculty, College of Engineering, Texas A&M University
2007 Organizer of the *Atomic Force Microscopy Workshop*, College Station, TX
2007 Judge in the Poster Session, The 3rd Annual CVRI Research Retreat, Temple, TX
2006 Co-organizer of the *Principles and Applications of Confocal Microscopy and Flow Cytometry Workshop*, VA Research Building, Temple, TX
2006-present Member of the Graduate Faculty, Graduate School of Biomedical Sciences, Texas A&M HSC
2006-present Member of the Cardiovascular Research Institute at Texas A&M University, College Station, TX
2001-2003 Judge (Physics Section) at the Regional Engineering and Science Fair, Memorial Student Center, Texas A&M University, College Station, TX

OUTREACH ACTIVITIES

- 2008-present Organizer of the *Saturday Morning Biophysics: Image life!* Outreach Program (part of the NSF CAREER award), Number of participants: 20/2008; 28/2009, 27/2010

TEACHING EXPERIENCE

- 2010 MSCI 601: Principles of Basic Medical Sciences (team teaching), Texas A&M HSC, Fall
2008-present SBTM 601: Techniques in Cell & Molecular Biology (team teaching), Texas A&M HSC, Fall
2008-present MSCI 612: Current Topics in Cell Signaling (team teaching), Texas A&M HSC, Spring
2002-2006 MPHY 601/689: Methods in Cell Physiology (team teaching), Texas A&M HSC, Fall

THESIS/DISSERTATION COMMITTEES

- Mentor/Chair: Harini Sreenivasappa - BMEN PhD student – joined my group as Graduate Research Assistant in September 2009
Member: Srinivasa Pothula – Veterinary Microbiology PhD student (PI Gonzalo Rivera)
Jose Clemente Contreras Naranjo – Chemical Engineering PhD student (PI Victor Ugaz)
Chin-Fu Lee – Biomedical Engineering MS student (PI Roland Kaunas)

MANUSCRIPT REVIEWS FOR SCIENTIFIC JOURNALS

Journal of Biomedical Optics; Frontiers in Bioscience; Journal of Microscopy; Journal of Molecular Recognition; Ultramicroscopy; Biomechanics and Modeling in Mechanobiology; Journal of Virological Methods; Optical Engineering; Journal of Modern Optics

HONORS & AWARDS

- 2004 Hamamatsu Photonics Scholarship Recognition Award for participation at the course “Optical Microscopy in the Biological Sciences”, UT-HSC, San Antonio, TX
1999 Nominated and listed in Marquis’s Who’s Who in the World
1998 Optical Society of America Travel Award for participation at “Optical Interference Coatings” Conference, Loews Ventana Canyon Resort, Tucson, AZ

PROFESSIONAL MEMBERSHIPS

2009-present American Society for Cell Biology
2009 American Physical Society
2006 – present Biophysical Society
2006 - present American Association for Advancement of Science
2000 - 2002 Central Texas Society for Optics
1998 – present Optical Society of America
1993 – 2001 SPIE The International Society for Optical Engineering
1991 – 1998 Romanian Physical Society

INVITED TALKS

2010, November 2 - Light meets force: Mechanosensing induced cellular remodeling, University of Texas Southwestern Medical Center, Department of Cell Biology, Dallas, TX
2009, August 5 – “Light meets force: Integrated imaging techniques applied to live cell mechanics”, Center for Biophotonics, Science and Technology, University of California, Davis
2009, March 20 – “Sub-cellular structures studied by combined atomic force-fluorescence microscopy”, American Physical Society March Meeting 2009, Pittsburgh, PA
2009, February 4 – “Real time mechanotransduction in live cells”, Gordon Conference – Fibronectin, Integrins and Related Molecules, Ventura, CA
2009, January 14 – ‘Integrated Atomic Force-Optical Microscopy Applied to Live Cell Biophysics’, Department of Systems Biology and Translational Medicine, Texas A&M HSC, College Station, TX
2008, November 20 – ‘Saturday Morning Biophysics Outreach Program for High-School Girls’, Dept. Teaching, Learning & Culture, TAMU, College Station, TX
2008, October 16 – “Integrated Atomic Force-Optical Microscopy applied to live cell biophysics”, 2nd Conference AFM Biomed, Monterey, CA
2007, November 27 – “Combining Atomic Force And Optical Microscopy For Biological Applications”, Atomic Force Microscopy Workshop, College Station, TX
2007, October 22 – “Imaging Techniques for biomedical applications: understanding live cell dynamics in response to mechanical force”, 44th Annual Technical Meeting of the Society of Engineering Science, College Station, TX
2007, September 11 – “Integrated imaging techniques applied to live cell biophysics” Frontiers in Optics OSA 91th Annual Meeting/Laser Science XXIII, San Jose, CA
2006, October 20 - “Integrated scanning and optical imaging techniques for vascular studies’, The 2nd Annual CVRI Research Retreat, October 19-20, 2006, College Station, TX
2006, October 19 - “Atomic Force Microscopy Integrated with Optical Imaging: Advancing Live Cell Research”. School of Chemical, Biological & Materials Engineering, University of Oklahoma, Norman, OK.
2006, September 28 – “Integrated nano-imaging techniques applied to live cell dynamics” Bioimaging and Engineered Biosystems Workshop, Lehigh University, Bethlehem, PA
2006, April 1-5 – “An Atomic Force-Multi-Optical Imaging Integrated Microscope for Monitoring Vascular Cell responses to Mechanical Forces and Focal Contact Remodeling” American Physiological Society, Experimental Biology Workshop: Atomic Force Microscopy for Physiological Studies at the Nano-Scale, San Francisco, CA
2006, March 2 – “Imaging techniques for nano-science: sub-cellular dynamics”, Department of Systems Biology and Translational Medicine, Texas A&M HSC, College Station, TX
2006, February 20 – “Integrated nano-imaging techniques applied to live cell dynamics”, Department of Bioengineering, University of Illinois at Urbana-Champaign, IL
2006, February 20 – “Real time monitoring of molecular dynamics in live cells”, Department of Bioengineering, University of Illinois at Urbana-Champaign, IL

2006, February 16 – “Integrated nano-imaging techniques applied to live cell dynamics”, Department of Physics, University of Texas, Arlington, TX

2006, February 3 – “Total Internal Reflection Fluorescence Microscopy”, Department of Physics, Lehigh University, Bethlehem, PA

2006, February 2 – “Imaging techniques for nano-science: sub-cellular dynamics”, Department of Physics, Lehigh University, Bethlehem, PA

2005, August 31 – “Integrated nano-imaging techniques applied to live cell dynamics”, Department of Physics, University of Missouri, Columbia, MO

2004, December 21 - “Monitoring molecular dynamics in live cells” Dept. of Biomedical Engineering, Texas A&M University HSC, College Station, TX

2004, November 4 - “Monitoring molecular dynamics in live cells using NanoFluor Integrated Microscope” Department of Medical Physiology, Texas A&M University HSC, College Station, TX

2004, October 6 - Dept. of Biomedical Engineering, Texas A&M University HSC, College Station, TX

2003, November 26 - “Adhesion to Fibronectin after Histamine treatment in Endothelial cells: A study using Atomic Force Microscopy”, Department of Biomedical Engineering, Texas A&M University, College Station, TX

1997, August 22 - “Interference filters: homogeneous and inhomogeneous approaches”, Centro de Investigaciones en Optica, Leon de Guanajuato, Mexico

IN THE NEWS

My research was featured in Veeco Nanovations Newsletter vol. 6, December 2008

http://www.veeco.com/library/resources/nanovations/view_news.aspx?newsId=102&issueld=6&volld=22®ionld=4&techld=51

American Physical Society featured my research in the Gazette Newsletter March 2009 pp 14-15 (The newsletter of the American Physical Society Committee on the Status of Women in Physics).

<http://www.aps.org/programs/women/reports/gazette/upload/spring09.PDF>

NSF Highlight 2010, National Lab Day: Exemplary Projects, May 14, 2010: ‘Mentoring future women scientists’ – featured my Outreach program for high-school girls Saturday Morning Biophysics: Image Life!

http://www.nsf.gov/news/special_reports/natlabday/examples.jsp

Dean’s News Letter September 2010 - Faculty - Trache gears up for 3rd Annual Saturday Morning Biophysics Program, <http://medicine.tamhsc.edu/dean/newsletter/2010/september.html#college>

HSC Website_News: Young Girls Gear Up for 3rd Annual Saturday Morning Biophysics Program

<http://news.tamhsc.edu/2010/09/17/young-girls-gear-up-for-3rd-annual-saturday-morning-biophysics-program/>

My research was featured by Photometrics: Customer Profile - Simultaneous Atomic Force Microscopy, TIRF, and FSD Confocal Microscopy for Live Cell Mechanotransduction Studies, January 2011.

<http://www.photometrics.com/resources/casestudy/Photometrics-Customer-Profile-Andreea-Trache.php>

RESEARCH SUPPORT

ACTIVE

National Science Foundation (# 0747334)

CAREER: Integrated Scanning and Optical Imaging Techniques to Enable Understanding of Live Cell Dynamics - From Molecular Biology to Physiological Function

Total costs: \$429,783

Period: 05/01/2008-04/30/2013

Role: PI

Reviewers’ Priority Score: Excellent (3 reviews)

Panel Priority Score: High Priority

American Heart Association National (#0735360N)

Scientist Development Grant: Focal adhesion remodeling in vascular smooth muscle

Total costs: \$308,000

Period: 07/01/2008-06/30/2012

Role: PI

Priority Score: 1.5722

Percentile: 7.78

COMPLETED

American Heart Association Texas (#0765082Y)

Beginning-Grant-in-Aid: Focal adhesion remodeling in vascular smooth muscle

Total costs: \$130,000

Period: 07/01/2007-06/30/2009

Role: PI

Priority Score: 1.5056

Percentile: 6.58

Proposal was withdrawn in the 2nd year per AHA regulations when the Scientist Development Grant was funded.

REU Supplement (# 0937519) to the National Science Foundation CAREER award

Total costs: \$6,194

Period: 06/01/2009-08/09/2009

Role: PI

Lockheed Martin 2008 Science, Technology, Engineering, and Math (STEM) Career Exploration Fund Grant Supplement for the NSF CAREER Outreach Program: Saturday Morning Biophysics: Image life! for High-School Girls

Total costs: \$8,400

Period: 03/01/2008-02/28/2009

Role: Collaborator (PI: Girl Scouts of Central Texas)

Girl Scouts of Central Texas

Supplement funding for the NSF CAREER Outreach Program 2009: Saturday Morning Biophysics: Image life!

Total costs: \$4,588

Period: 09/12/2009-11/14/2009

Role: Collaborator

Girl Scouts of Central Texas

Supplement funding for the NSF CAREER Outreach Program 2010: Saturday Morning Biophysics: Image life!

Total costs: \$3,500

Period: 09/25/2010-11/13/2010

Role: Collaborator

LIST OF PUBLICATIONS

(Please note a family name change: formerly Dinca to currently Trache)

(*Corresponding author)

PEER REVIEWED JOURNALS

1. HN Hayenga, **Andreea Trache**, J. Trzeciakowski, J.D. Humphrey, Regional Atherosclerotic Plaque Properties in ApoE^{-/-} Mice Measured by Atomic Force Microscopy, *Journal of Vascular Research*; manuscript # 4004, submitted December 18, 2010 (in review)
2. **Andreea Trache***, SM Lim. Live cell response to mechanical stimulation studied by integrated optical and atomic force microscopy, *Journal of Visualized Experiments*, 44 (2010) 2072. PMID: 20972405. <http://www.jove.com/index/details.stp?id=2072SM>
3. Lim; BA Kreipe; JP Trzeciakowski; L Dangott; **Andreea Trache***, "Extracellular matrix effect on RhoA signaling modulation in vascular smooth muscle cells", *Experimental Cell Research* 316 (2010) 2833-2848. PMID: 20599954
4. **Andreea Trache***, JP Trzeciakowski and GA Meininger, "Mg²⁺ modulates integrin-extracellular matrix interaction in vascular smooth muscle cells studied by atomic force microscopy", *Journal Molecular Recognition* vol 23 (2010) 316-321. PMID: 20049771
5. **Andreea Trache*** and SM Lim. "Integrated microscopy for real-time imaging of mechanotransduction studies in live cells," *Journal of Biomedical Optics* vol. 14 (3), 034024 (2009) 1-13. PMID: 19566317
Selected for the frontier research compilation Virtual Journal Biological Physics Research vol 18 (1) (2009)
The research described in this paper was featured in Nanovations Veeco Newsletter vol. 6, December 2008
http://www.veeco.com/library/resources/nanovations/view_news.aspx?newsId=102&issueId=6&volId=22®ionId=4&techId=51
and by *Photometrics* in January 2011 <http://www.photometrics.com/resources/casestudy/Photometrics-Customer-Profile-Andreea-Trache.php>
6. S Na, **Andreea Trache**, Z. Sun, G.A. Meininger, J.D. Humphrey. "Time-dependent changes in cell stiffness and focal adhesion area in response to cyclic stretch" *Annals Biomed. Eng.* 36 (2008) 369-380. PMID: 18214679.
7. **Andreea Trache** and GA. Meininger 'Atomic Force Microscopy' in *Current Protocols in Microbiology*, R. Coico, T. Kowalik, J.M. Quarles, B. Stevenson and R.K. Taylor eds., Wiley & Sons Inc., 2C (2008) 2.1-17. PMID: 18770536
8. **Andreea Trache** and GA. Meininger 'Total Internal Reflection Fluorescence Microscopy' in *Current Protocols in Microbiology*, R. Coico, T. Kowalik, J.M. Quarles, B. Stevenson and R.K. Taylor eds., Wiley & Sons Inc., 2A (2008) 2.1-22. PMID: 18729056
9. DM Hawkins, **Andreea Trache**, AE Ellis, D Stevenson, A Holzenburg, GA Meininger, and SM Reddy. "Quantification and confocal imaging of fluorescently labeled protein specific molecularly imprinted polymers (HydroMIPs)", *Biomacromolecules* vol 7 (2006) pp. 2560-2564. PMID: 16961318
10. MH. Chowdhury, VA Gant, **Andreea Trache**, A Baldwin, G.A. Meininger and GL Cote. "The use of surface enhanced Raman spectroscopy (SERS) for the detection of human integrins", *Journal of Biomedical Optics* 11, 024004 (2006) 1-8. PMID: 16674194
11. **Andreea Trache** and G.A Meininger. "An Atomic Force – Multi Optical Imaging Integrated Microscope for Monitoring Molecular Dynamics in Live Cells", *Journal of Biomedical Optics* vol 10, 064023 (2005) 1-17. PMID: 16409088
Featured in *Biophotonics International* and one of its figures was selected as cover page of April 2006 issue (*A. Slade. Combined Optical and Atomic Force Microscopy: Advancing Biological Research, Biophotonics International. April 2006 pp 46-47*).
The integrated microscope that is described in this paper was featured by Olympus in Science vol. 306, pp. 1864-1865 (2004).
12. Z. Sun, L.A. Martinez-Lemus, **Andreea Trache**, J.P. Trzeciakowski, G.E. Davis, U. Pohl, G.A. Meininger "Mechanical Properties of the Interaction between Fibronectin and alpha5beta1 Integrin on Vascular Smooth Muscle Cells: Studied using Atomic Force Microscopy", *Am J Physiol: Heart Circ Physiol.* vol 289 (2005) pp. H2526-2535. PMID: 16100245. <http://ajpheart.physiology.org/cgi/reprint/289/6/H2526>
13. L.A. Martinez-Lemus, Z. Sun, **Andreea Trache**, J.P. Trzeciakowski, G.A. Meininger "Integrins and regulation of the Microcirculation: From arterioles to molecular studies using Atomic Force Microscopy", *Microcirculation* vol 12 (2005) pp. 99-112. PMID: 15804978
14. **Andreea Trache**, J.P. Trzeciakowski, L.A. Gardiner, Z. Sun, M. Muthuchamy, M. Guo, S. Yuan, GA Meininger. "Histamine effect on endothelial cell fibronectin interaction studied by atomic force microscopy", *Biophysical Journal* vol.89 (2005) pp. 2888-2898. PMID: PMC1366785.
<http://www.biophysj.org/cgi/reprint/89/4/2888>
15. C. W. Tong, A. Kolomenskii, V. A. Lioubimov, H. A. Schuessler, **Andreea Trache**, H. J. Granger, M. Muthuchamy, "Measurements of the Crossbridge Attachment/Detachment Process within Intact

sarcomeres Using the Surface Plasmon Resonance”, Biochemistry , vol 40 (2001) pp. 13915-13924. PMID: 11705381

16. D. Morton, **Andreea Dinca**, “Ion-Assisted deposition of E-gun evaporated ITO films at low substrate temperatures”, Vacuum Technology & Coating, January-February (2000) pp. 53-59
17. **Andreea Dinca***, P. T. Miclea, V. Lupei, T. Skettrup, M.P. Dinca, "Multiple solutions provided by analytical synthesis in admittance matching: application to dichroic mirrors", Journal of Modern Optics vol. 45 (3) (1998) pp. 605-618
18. **Andreea Dinca***, M.E. Trifan, V. Lupei, M.P. Dinca, "Dichroic mirror design by complete admittance matching", Optical Engineering, vol. 35 nr. 5 (1996) pp. 1284-1287
19. **Andreea Dinca***, M.E. Trifan, V. Lupei, M.P. Dinca, "Variable reflectivity mirrors with all profiled layers", Optics Communications vol. 127 (4-6) (1996) pp. 176-182
20. **Andreea Dinca***, M.E. Trifan, V. Lupei, M.P. Dinca, "Admittance-matched interference polarizers", Journal of Modern Optics vol. 43 (8) (1996) pp. 1615-1620
21. **Andreea Dinca***, Mirela Ionita-Manzatu, V. Lupei, "Thin film polarizers for 1.064 μ m", Romanian Reports in Physics, vol. 45, nr. 5-6 (1993) pp. 391-398

PATENTS

1. **Andreea Dinca*** and V. Lupei, “Dichroic mirror for lasers” (Dichroic mirror working at 2.94 μ m with suppressed band at 0.97 μ m) approved by Romanian State Patent Office (OSIM), Patent nr. 114516B1, published in BOPI April 30, 1999

REFEREED CONFERENCE PAPERS & PROCEEDINGS

1. D. Morton, **Andreea Dinca**, “Ion-Assisted deposition of E-gun evaporated ITO films at low substrate temperatures”, 42nd Annual Technical Conference of the Society of Vacuum Coaters, 20-22 April 1999, Chicago, Proceedings of the Society of Vacuum Coaters, 42nd Annual Technical Conference (1999) pp.250-254
2. **Andreea Dinca***, V. Lupei, M. Dinca, “Symmetry properties of solutions in admittance matching method”, Optical Interference Coatings Conference, June 7-12 1998, Tucson, Arizona, OSA Technical Digest Series vol. 9 (1998) pp.316-318
3. **Andreea Dinca***, V. Lupei, M.P. Dinca, "Interferential filter design with continuously variable refractive index", ROMOPTO'97: Fifth Conference on Optics, 9-12 September 1997, Bucharest, Romania, Proc. SPIE vol. 3405 (1998) pp. 1173-1177
4. **Andreea Dinca***, P. T. Miclea, V. Lupei, M.P. Dinca, "On the solutions of the symmetrical three layer synthesis problem", ROMOPTO'97: Fifth Conference on Optics, 9-12 September 1997, Bucharest, Romania, Proc. SPIE vol. 3405 (1998) pp. 1162-1166
5. **Andreea Dinca***, P. T. Miclea, V. Lupei, M.P. Dinca, "Regularities observed among the solutions obtained for optical admittance matching", 3rd General Conference of the Balkan Physical Union (BPU-3), 2-5 September 1997, Cluj-Napoca, Romania, Proc. Suppl. Balkan Physics Letters vol.5 (1997) pp. 1403-1406
6. **Andreea Dinca***, V. Lupei, M.P. Dinca, "Design of inhomogeneous layers with finite optical thickness", 3rd General Conference of the Balkan Physical Union (BPU-3), 2-5 September 1997, Cluj-Napoca, Romania, Proc. Suppl. Balkan Physics Letters vol.5 (1997) pp. 1407-1410
7. **Andreea Dinca***, M.P. Dinca, V. Lupei , "Dielectric mirrors coating of the active medium for the diode-pumped Erbium laser", Solid State Lasers VI, 10-11 February 1997, San Jose, California, Proc. SPIE vol. 2986 (1997) pp. 203-212
8. **Andreea Dinca***, V. Lupei, P. T. Miclea, M.P. Dinca, "Dichroic mirror for high power Nd:YAG laser", High_Power Lasers: Solid state, Gas, Excimer and Other Advanced Lasers, 4-5 November 1996, Beijing, China, Proc. SPIE vol. 2889 (1996) pp. 418-427
9. **Andreea Dinca***, T. Skettrup, V. Lupei, M.E. Trifan, M.P. Dinca, "Dichroic mirror for diode pumped Yag:Nd laser", Developments in Optical Component Coatings, 15-16 May 1996, Glasgow, UK, Proc. SPIE vol. 2776 (1996) pp. 262-269
10. **Andreea Dinca***, "Edge filters with thin dielectric layers", ROMOPTO'94: Forth Conference on Optics, 5-8 September 1994, Bucharest, Romania, Proc. SPIE vol.2461 (1995) 588-590
11. **Andreea Dinca***, M.E.Trifan, V. Lupei, M.P. Dinca, "Design and fabrication of graded reflectivity mirrors", Optical Interference Coatings, OSA Technical Digest Series vol.17 (1995) pp.118-120
12. **Andreea Dinca***, M.E. Trifan, V. Lupei, M.P. Dinca, "Design of double reflecting interferential mirror", Optical Interference Coatings, OSA Technical Digest Series vol.17 (1995) pp. 67-68

13. **Andreea Dinca***, V. Lupei, "Admittance matching design for thin film polarizers", 2nd General Conference of the Balkan Physical Union (BPU-2), 12-14 September 1994, Izmir, Turkey, Proc. Suppl. Balkan Physics Letters, vol.2 (1994) pp. 1377-1381
14. **Andreea Dinca***, V. Lupei, M.P.Dinca, "Thin films for variable reflectance laser mirrors", Modelling and Simulation of Laser Systems III, 24-25 January 1994, Los Angeles, CA, Proc. SPIE vol. 2117 (1994) pp. 196-204
15. **Andreea Dinca***, V. Lupei, M. P. Dinca, "Design of graded reflectivity mirrors for YAG:Nd lasers", High-Power Gas and Solid State Lasers, 5-8 April 1994, Vienna, Austria, Proc. SPIE vol. 2206 (1994) pp. 554-562
16. **Andreea Dinca***, V. Lupei, M. P. Dinca, "Design of broadband dichroic mirrors using admittance matching", Optical Interference Coatings Conference 6-10 July 1994, Grenoble, France, Proc. SPIE vol. 2253 (1994) pp. 120-129
17. **Andreea Dinca***, V. Lupei, M. P. Dinca, "Design of Graded-Reflectivity-Mirrors using rotating masks", Optical Interference Coatings Conference 6-10 July 1994, Grenoble, France, Proc. SPIE vol. 2253 (1994) pp. 130-139
18. **Andreea Dinca***, V. Lupei, M. P. Dinca, "High reflectance mirror for 1.064 μm and 0.532 μm ", Optics as a key to high technology: 16th Congress of the International Commission for Optics, 9-13 August 1993, Budapest, Hungary, Proc. SPIE vol. 1983 (1993) pp. 276-277
19. N. Pavel, T. Dascalu, V. Lupei, Mirela Ionita-Manzatu, **Andreea Dinca**, "Thermal lensing effects in Q-switched Nd:YAG laser with superGaussian mirrors", Optics as a key to high technology: 16th Congress of the International Commission for Optics, 9-13 August 1993, Budapest, Hungary, Proc. SPIE vol. 1983 (1993) pp. 40-41

POSTER PRESENTATIONS & ABSTRACTS

1. SM Lim, Jerome P Trzeciakowski; and **Andreea Trache***. Effect of tensile stress on smooth muscle cells. 55th Annual Meeting of Biophysical Society, March 5-9, 2011, Baltimore, Maryland (accepted)
2. SM Lim, JP Trzeciakowski and **Andreea Trache***. Mechanically induced cell signaling stimulates real-time cytoskeleton remodeling. 54th Annual Meeting of Biophysical Society, February 20-24, 2010, San Francisco, CA, Biophysical J 98(3) Supplement 1, pp 190a (2010).
3. H. Hayenga, **Andreea Trache**, JP Trzeciakowski, J Humphrey, 'Regional Atherosclerotic Plaque Properties as Measured by Atomic Force Microscopy', 2010 Biomedical Engineering Society Annual Meeting, October 6-9, 2010, Austin, TX
4. CL. Papke, J Cao, SM Lim, M Rees, **Andreea Trache**, E Wilson, W Zimmer, DM. Milewicz, Deletion of *Acta2* Leads to Increased Smooth Muscle Cell Proliferation and Neointimal Formation in Mice, International Vascular Biology Meeting, June 20-24, 2010, Los Angeles, CA
5. SM Lim, JP Trzeciakowski, and **Andreea Trache***, 'Live cell adaptive remodeling to mechanical signaling', Gordon Conference - Signal transduction by Engineered Extracellular Matrices, June 27-July 2, 2010, University of New England, Biddeford, ME
6. SM Lim, JP Trzeciakowski and **Andreea Trache***. Mechanically induced cell signaling stimulates real-time cytoskeleton remodeling. 54th Annual Meeting of Biophysical Society, February 20-24, 2010, San Francisco, CA, Biophysical J 98(3) Supplement 1, pp 190a (2010).
7. SM Lim and **Andreea Trache***. 'Adaptive cellular remodeling to mechanical stimulation' 49th Annual meeting of the American Society for Cell Biology, December 5-9, 2009, San Diego, CA, Abstract 1003
8. SM Lim, JP. Trzeciakowski and **Andreea Trache***. 'Mechanical stimulation induces direct cytoskeletal rearrangement in live smooth muscle cells', Gordon Conference - Cell contact & adhesion: cell-cell functions, polarity and morphogenesis, Waterville Valley Resort, June 28-July 3, 2009, Waterville Valley, NH
9. SM Lim, BA Kreipe and **Andreea Trache*** "Sub-cellular structures studied by combined atomic force-fluorescence microscopy", American Physical Society March Meeting 2009, March 16-20, 2009, Pittsburgh, PA, Bulletin of the American Physical Society vol 54 (1) 2009, Abstract Y39.3
10. SM Lim, BA Kreipe, JP Trzeciakowski, and **Andreea Trache***. 'Force transduction in smooth muscle cells, 53rd Annual Meeting of Biophysical Society, February 28-March 4, 2009, Boston, MA, Biophysical Journal Supplement vol. 96 (3) (2009) pp. 397a

11. SM Lim, BA. Kreipe, and **Andreea Trache***. "Dual imaging of live cells using AFM and fluorescence microscopy to study RhoA effect on focal adhesions and cytoskeleton remodeling" AFM-Biomed 2008, October 15-18, 2008, Monterey, CA, Abstract pp. 155
12. **Andreea Trache*** and SM Lim. "Integrated Atomic Force-Optical Microscopy applied to live cell biophysics", AFM-Biomed 2008, October 15-18, 2008, Monterey, CA, Abstract pp. 105
13. SM Lim, BA. Kreipe, and **Andreea Trache***. "Extracellular matrix effect on RhoA signaling modulation studied by integrated scanning and optical microscopy", Frontiers in Cell Migration-from mechanism to disease, NIH - Cell Migration Consortium Conference, September 16-18, 2008, Bethesda, Abstract pp. 60
14. SM Lim, BA Kreipe, JP Trzeciakowski, WE Zimmer and **Andreea Trache***. 'Real-time monitoring of histamine effect on live endothelial cells", 52nd Annual Meeting of Biophysical Society, February 2-6, 2008, Long Beach, CA, Abstract pp. 32
15. SM Lim, BA Kreipe, JP Trzeciakowski, WE Zimmer and **Andreea Trache***. 'Real-time monitoring of histamine effect on live endothelial cells", 13th Annual Student Research Symposium, College of Medicine, TAMHSC, April 17, 2008, College Station, TX, Abstract pp. 31
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