STELIOS T. ANDREADIS, Ph.D.
Professor

UNIVERSITY ADDRESS
University at Buffalo, State University of New York
Department of Chemical and Biological Engineering
Department of Biomedical Engineering
Center of Excellence in Bioinformatics and Life Sciences
Buffalo, NY 14260-4200

HOME ADDRESS
5834 Forest Creek Dr.
East Amherst, NY 14051
Tel: (716) 568-0371

Office: 306/908 Furnas Hall
Tel: (716) 645-1202
Fax: (716) 645-3822
Email: sandread@buffalo.edu
URL: http://www.cbe.buffalo.edu/andreadis

EDUCATION

1996-1998	**Postdoctoral Research Fellow** Center for Engineering in Medicine, Massachusetts General Hospital and Harvard Medical School, Boston, MA
1992-1996	**Ph.D. Chemical Engineering,** University of Michigan, Ann Arbor, MI Area of concentration: Bioengineering **Master of Mathematics**, University of Michigan, Ann Arbor, MI Area of concentration: Applied Mathematics
1991-1992	**Master of Science, Chemical Engineering**, University of Michigan, Ann Arbor, MI
1985-1991	**Bachelor, Chemical Engineering**, Aristotle University, Thessaloniki, Greece

EMPLOYMENT HISTORY

Aug 2012-	**Chair**, Department of Chemical and Biological Engineering, State University of New York at Buffalo, Buffalo, NY
Aug 2008-	**Professor**, Department of Chemical and Biological Engineering, Department of Biomedical Engineering, State University of New York at Buffalo, Buffalo, NY
Fall 2009	**Visiting Professor,** Harvard Medical School, Children's Hospital of Boston, Department of Hematology/Oncology, Laboratory of Dr. George Daley
2003-2008	**Associate Professor**, Department of Chemical and Biological Engineering, State University of New York at Buffalo, Buffalo, NY
2006-pres.	**Member**, Center of Excellence of Bioinformatics and Life Sciences (CoE), Buffalo, NY, 14203
2003-2008	**Adjunct Associate Professor,** Department of Biological Sciences, State University of New York at Buffalo, Buffalo, NY

2001-pres. **Co-director**, Center for Biomedical Engineering, State University of New York at Buffalo, Buffalo, NY
2001-pres. **Member**, Center for Drug Discovery and Experimental Therapeutics (CDDET), State University of New York at Buffalo, Buffalo, NY
2000-2003 **Adjunct Assistant Professor,** Department of Biological Sciences, State University of New York at Buffalo, Buffalo, NY
1999-2003 **Member**, Center for Advanced Molecular Biology and Immunology (CAMBI), State University of New York at Buffalo, Buffalo, NY
1998-2003 **Assistant Professor**, Department of Chemical and Biological Engineering, State University of New York at Buffalo, Buffalo, NY

HONORS AND AWARDS

- *SUNY Chancellor's Award for Excellence in Scholarship,* April 2014.
- Keynote Presentation, *Northeast Bioengineering Conference (NEBC)*, Syracuse University, Syracuse, NY, April 5-7, 2013.
- Keynote Presentation, *"Engineering Stem Cell Therapies"* Topical Session, *AIChE Meeting*, Pittsburg, PA, October 31, 2012
- Keynote Presentation, *Network of Excellence for Functional Biomaterials, National University of Ireland*, Galway, Ireland, June 19, 2012
- Invited presentation, National Science Foundation (NSF-CBET) Grantee Conference, June 6-8, 2012
- Elected to the College of Fellows of the *American Institute for Medical and Biological Engineering* ***(AIMBE),*** 2009
- Exceptional Scholar: Sustained Achievement Award, UB, 2009
- Exceptional Scholar Young Investigator Award, UB, 2003
- NSF CAREER Award, 2000
- Whitaker Foundation Young Investigator Award, 1999
- Innovator of Upstate New York, UB Alliance for Innovation, 2001
- Individual Development Award, UB, 2000
- Riefler Award, UB, 1999
- Honor Student Award from Aristotle University (1985-1986 and 1987-1988).

EDITORIAL BOARDS

- Editorial Board of *Technology*, 2013-pres
- Senior Editorial Board of the *American Journal of Stem Cells*, 2013-pres
- Editorial Board of *Biomatter*, 2011-pres
- Editorial Board of *The Open Gene Therapy Journal*, 2008-pres
- Editorial Board of *The Pathology Journal*, 2008-pres
- Editorial Board of *Tissue Engineering, Part C (Methods)*, 2008-2011
- Editorial Board of *Tissue Engineering, Part B (Reviews)*, 2008-2011
- Editorial Board of *Tissue Engineering Part A*, 2006-2011

LEADERSHIP POSITIONS IN PROFESSIONAL SOCIETIES

- Programming Chair, *Food, Pharmaceutical & Bioengineering Division (Division 15)*, American Institute of Chemical Engineers (AIChE), 2013

- Executive Committee Chair of the *Food, Pharmaceutical & Bioengineering Division*, American Institute of Chemical Engineers *(AIChE)*, 2012
- Vice Chair of Division of the *Food, Pharmaceutical & Bioengineering Division*, American Institute of Chemical Engineers *(AIChE)*, 2011
- Director of the *Food, Pharmaceutical & Bioengineering Division (Div 15)*, American Institute of Chemical Engineers *(AIChE)*, 2008-2010
- Program Chair of Area 15d/e, *Food, Pharmaceutical & Bioengineering Division* of the American Institute of Chemical Engineers (2005-2006).

STUDENTS AND POST-DOCTORAL FELLOWS AWARDS

- **AIChE 2013 Best Presentation** to **Sindhu Row** for her presentation at the AIChE meeting in San Francisco, CA, November 6, 2013. Session: Stem Cells in Tissue Engineering II

  Awarded paper: "Maturation of Implantable Vascular Grafts in An Ovine Model Using Small Intestinal Sub-Mucosa: Do We Need Pre-Seeding of Smooth Muscle Cells?"

  Authors: S. Row, H.F. Peng, E.M. Schlaich, C. Koenigsknecht, D.D Swartz and **S.T. Andreadis**
- **BMES 2013 Outstanding Contribution** to **Sindhu Row** for her presentation at the BMES meeting in Seattle, WA, September 26, 2013.

  Awarded paper: "Time Course of Healing and Maturation of Implantable Vascular Grafts in the Arterial System of an Ovine Model: Do We Need Cells in the Vascular Wall?"

  Authors: S. Row, H.F. Peng, E.M. Schlaich, C. Koenigsknecht, D.D Swartz and **S.T. Andreadis**
- **Best Poster Presentation Award** to **Vivek Bajpai** and **Panos Mistriotis** at the *CBE Department Graduate Research Symposium*, University at Buffalo (2013)

  Awarded paper: "Fabrication of highly vasoreactive and robust tissue engineered vascular media using doxycycline treatment: implications for vascular tissue engineering"
- **Best Poster Presentation Award** to **Dr. Meng-Horng Lee** at the *CBE Department Graduate Research Symposium*, University at Buffalo (2008)

  Awarded paper: "JNK phosphorylates beta-catenin and regulates adherens junctions"
- **Best Oral Presentation Award** to **Dr. Liana M. Lugo** for presenting her work, "Growth Factor Infiltration into Human Acellular Dermis Promotes Angiogenesis In Vivo" in the *Department of Surgery's Third Annual Research Day*, *University at Buffalo,* Buffalo, NY, May 31, 2007.
- **Frawley Research Award** to **Dr. Liana M. Lugo** for research proposal on "Fibrin delivery of keratinocytes along with keratinocyte growth factor onto modified human dermis", April 9, 2007.
- **Best Poster Presentation Award** to **Dr. Piyush Koria** at the *CBE Department Graduate Research Symposium*, University at Buffalo (2006)

  Awarded paper: "Distinct CCAAT/enhancer binding protein isoforms mediate Keratinocyte Growth Factor induced migration and proliferation of epithelial cells"

- **Outstanding Scientific Poster** to **Dr. Pedro Lei**, *AIChE Meeting*, San Francisco (2003)
  Awarded paper: "Rate-limiting steps in retrovirus synthesis and assembly"
- **Outstanding Scientific Poster**, *Engineering Tissue Growth International Conference & Exposition (ETG)*, Pittsburgh, PA (2003)
  Awarded paper: **P. Koria**, D. Brazeau, P. Hayden & S.T. Andreadis, "Functional genomics in tissue engineering: gene expression profiles of tissue engineered skin subjected to barrier disruption"
- **Best Poster Presentation Award** to **Dr. B.G. Bajaj** at the *Center for Advanced Molecular Biology and Immunology (CAMBI),* University at Buffalo (2003)
  Awarded paper: "Retroviral gene transfer to epidermal stem cells"
- **Best Poster Presentation Award** to **Dr. Piyush Koria** at the *CBE Department Graduate Research Symposium*, University at Buffalo (2000)
  Awarded paper: "Retroviral gene transfer to epidermal stem cells"

PROFESSIONAL MEMBERSHIPS

- Tissue Engineering & Regenerative Medicine International Society (TERMIS)
- American Society of Gene Therapy
- North American Vascular Biology Organization (NAVBO)
- Biomedical Engineering Society (BMES)
- American Institute of Chemical Engineers (AIChE)
- American Society of Microbiology (ASM)
- Technical Chamber of Greece (T.E.E.)

PROFESSIONAL ACTIVITIES

- NSF Tissue Engineering & Stem Cell Review Panel, Dec 2013
- Ad Hoc Member, NIH BTSS Study section, July 2013
- Ad Hoc Reviewer, USAMRMC grants, June 2013
- Grant reviewer for the Greek Ministry of Education, Religious Affairs, Culture and Sports: - ARISTEIA II grants administered by the General Secretariat for Research and Technology, February 2013.
- Ad Hoc Member, NIH Study Section, Oct 2012.
- Member, NSF CAREER Review Panel, Oct 2012.
- Ad Hoc Member, BTSS NIH Study Section Member, May 2011.
- Vice Chair of Division 15, American Institute of Chemical Engineers *(AIChE)*, 2011
- Ad Hoc Member, NIH Review Panel ZHL1 CSR-N (M1, M2). RFA: "New Strategies for Growing 3D Tissues, March 2011.
- NSF CAREER Awards Review Panel, Fall 2010
- Ad Hoc Member, NIH Eureka Grants Review Panel, Spring 2010
- Reviewer for the American Institute of Biological Sciences (AIBS) of proposals submitted to the US Army Medical Research and Materiel Command, 2010
- Organizer and Chair, "Cardiovascular Tissue Regeneration" session, BMES, Fall 2009
- NSF review panel, December 2009.
- Ad Hoc Member, NIH Eureka Grants Review Panel, Spring 2009
- Ad Hoc Member, NIH BTSS Study section, Spring, Summer and Fall 2009

- Director of Division 15, American Institute of Chemical Engineers *(AIChE)*, 2008-
- Organizer and Chair, "Modeling, Analysis and Control In Biomedicine" session, AIChE, Fall 2008
- Ad hoc Reviewer, NIH SBIR Grants Review Panel, February 2008
- AIChE Meeting, Program Chair, Area 15d/e, 2005-2006
- Organizer and Chair, "Gene Delivery I & II" sessions, AIChE, Fall 2006
- Ad Hoc Member, NIH SBIR Grants Review Panel, July 2006
- National Ireland Foundation Proposal Reviewer, May 2007
- Welcome Trust Fellowships on Wound Healing Proposal Reviewer, 2007
- Swiss National Science Foundation Proposal Reviewer, 2006
- NSF Review Panel, April 20-21, 2006
- Ad Hoc Member, NIH P20 Center for Wound Healing Panel, March 21, 2006
- Ad Hoc Member, NIH Proposals, November 2005
- AIChE Meeting, Program Vice Chair, Area 15d/e, 2004-2005
- Organizer and Chair, "Tissue Engineering and Biomaterials: Stem Cells in Tissue Engineering 1", session, BMES, Fall 2005
- Organizer and Chair, "Tissue Engineering and Biomaterials: Stem Cells in Tissue Engineering 2", session, BMES, Fall 2005
- Organizer and Chair, "Tissue Engineering and Biomaterials: Stem Cells in Tissue Engineering 3", session, BMES, Fall 2005
- Chair, "Gene Delivery (15D09)", session, AIChE, Fall 2005
- NSF Reviewer (September 2005)
- Ad Hoc Member, NIH BTSS Review Panel (October 2005)
- Ad Hoc Member, NIH/NIDDK Review Panel (July 2004)
- NSF Review Panels (June 2000, Dec 2000, June 2002, May 2003, Oct 2004, Aug 2005, April 2006)
- Ad Hoc Member, NIH P20 Center for Wound Healing Panel, March 2006
- Ad Hoc Member, NIH SBIR Grants, July 2006, May 2009, June 2009
- Reviewer for proposals for
    - National Science Foundation
    - Petroleum Research Fund – American Chemical Society
    - National Institutes of Health
    - National Ireland Foundation Proposals, May 2007
    - Welcome Trust Fellowships on Wound Healing, Jan 2007
    - Swiss National Science Foundation Proposals, Fall 2006
    - NYSTAR J.D. Watson Award Nominee Election Committee, July 2006
- Reviewer of manuscripts for scientific journals including:
    - Nature Medicine; Molecular Therapy; Stem Cells; Cloning and Stem Cells; Experimental Cell Research; Tissue Engineering; Regenerative Medicine; Human Gene Therapy; Gene Therapy; Journal of Virology; Journal of Investigative Dermatology; Journal of Cellular Physiology; Biomaterials; Journal of Biomedical Materials Research; Biomacromolecules; Acta Biomaterialia; Physiological Genomics; AAPS Pharmaceutical Sciences; Biochimica et Biophysica Acta; Biotechnology & Bioengineering; Biotechnology Progress; Biochemical Engineering Journal;;

Biomacromolecules; Annals of Biomedical Engineering; Cell Adhesion and Communication Cardiovascular Research

- Member of the Technology Assessment Panel (TAP) of the UB Business Alliance (UBBA) Office of Technology Transfer & Licensing (4/2000 to 5/2002)
- Organizer and Chair, "Advances in Gene therapy and Viral Vaccines I", session, AIChE, Fall 2004
- Organizer and Chair, "Advances in Gene therapy and Viral Vaccines II", session, AIChE, Fall 2004
- Co-chair and co-organizer of "Cellular Engineering" Track, BMES, Fall 2004
- Organizer and Chair of "Drug and Gene Delivery" Track (10 sessions), BMES, Fall 2002
- Organizer, "Gene Therapy Mini-Symposium", BMES, Fall, 2002. Several very well-known researchers in the field of Gene Therapy including James Wilson (U of Pennsylvania School of Medicine) and Kenneth Cornetta (Indiana University school of Medicine and center for Gene therapy) were invited to present their work in this Symposium sponsored by the Society of Biomedical Engineers.
- Organizer and Chair, "Gene Delivery I", session, BMES, Fall 2002
- Organizer and Chair, "Gene Delivery for Tissue Engineering", session, BMES, Fall 2002
- Organizer and Chair, "Developments in Viral Vaccines and Gene Therapy I", session, AIChE, Fall 2002
- Organizer and Chair, "Developments in Viral Vaccines and Gene Therapy II", session, AIChE, Fall 2002
- Co-organizer and Chair, "Stem Cells" session, AIChE Meeting, Fall 2001
- Co-organizer and Chair, "Drug and Gene Delivery in Engineered Cells and Tissues", BMES, Fall 2001
- Co-organizer and Chair, "Cellular Therapies" session, AIChE Meeting, Fall 2000
- Co-organizer and Chair, "Novel Gene Carriers", BMES, Fall 2000
- Co-Chair, "Engineering Approaches in Gene Therapy" session, 1999 AIChE Meeting.
- Co-organizer, UB Chemical Engineering Graduate Research Symposium, Fall 1998-2002.
- Co-organizer, UB Chemical Engineering Graduate Student Seminar, 9/98 to /9/03.
- Registered Professional Engineer (Technical Chamber of Greece) (3/91)

UNIVERSITY SERVICE

- Top Funded Researchers Committee, UB Vice President for Research Advisory Committee, Dec 2013-pres
- Biomedical Engineering Department Chair Search Committee, Spring 2012
- Member, Zeiss Confocal Laser Scanning Microscope (Model LSM 710) Setup Committee, 3/30/2010 - pres
- Member, Promotion Personnel Committee, School of Engineering and Applied Sciences, 2011
- UB/Roswell Park Cancer Institute Stem Cell Research Oversight (SCRO) Committee Member, Fall 2008-pres
- Chair, Biomedical Engineering Department Chair Search Committee, Spring 2008
- Member of the team to establish a new Biomedical Engineering Department at UB (Team Leader: Dean Stenger), Spring 2007
- Member of UB Interdisciplinary Strategic Strength Area: "Health and Wellness Across the Lifespan", Spring 2007
- Member, Search Committee for Dean of the School of Engineering and Applied Sciences (SEAS), Spring 2006
- Member of the committee to select UB's nominee for the NYSTAR J.D. Watson Award, July 2006
- Member, UB Review Panel for IRDF Proposals, February 2006.
- Member, UB Review Panel for Searle Proposals, July 2005.
- Mentor for junior faculty, UB-SEAS, 2004-present
- Member of a panel of UB inventors to evaluate candidates for the position of Commercialization Manager at STOR, November, 2004
- Co-director of the Center for Biomedical Engineering
- Member of the Technology Assessment Panel (TAP) of the UB Business Alliance (UBBA) Office of Technology Transfer & Licensing (4/2000 to 5/2002)
- Member of a group of investigators to establish a Center with focus on Nanotechnology and its applications in Biology, Medicine and Bioengineering (initiated by Dr. Turkkan).
- Participant in the "Upstate Alliance for Innovation" retreat at Beaver Hollow, NY, October 19-20, 2001.
- Member of the Bioengineering Masters Program Committee headed by Dr. Andres Soom.
- Member in multiple graduate student **M.S. and Ph.D. committees:**

Student Name	*Degree*	*Department*	*Thesis Advisor(s)*
Michael J. Ryan	Ph.D.	Physiology & Biophysics	George Hajduczok
Suddha Talukdar	M.S.	CBE	Paschalis Alexandridis
Fariyal Ahmet	M.S.	CBE	Sriram Neelamegham
Stephen Selkirk	Ph.D.	Neurology, RPCI	Steven J. Greenberg
Vassilios Sikavitsas	Ph.D.	CBE	T.J. Mountziaris
Matthew J. Gounis	M.S.	MAE	Baruch Lieber
Troy S. Thomson	M.S.	Periodontics & Endodontics	Keith L. Kirkwood
Adam Adler	M.S.	CBE	Sriram Neelamegham

Fuwad Al-sabek	M.S.	Periodontics & Endodontics	Keith L. Kirkwood
Tsuo-Feng Wang	Ph.D.	CBE	Johannes Nitsche
Harrish Shankaran	Ph.D.	CBE	Sriram Neelamegham
Kosmas Kretsos	Ph.D.	CBE	Johannes Nitsche
Camille Williams	M.S.	CBE	Sriram Neelamegham
Siddhartha S Mitra	Ph.D.	Biological Sciences	Bruce Nicholson
Heidi Lin Grandin	M.S.	CBE	Paschalis Alexandridis
Yi Zhang	Ph.D.	CBE	Sriram Neelamegham
Jun Wang	Ph.D.	CBE	T.J. Mountziaris
Yuri Dancik	Ph.D.	CBE	Johannes Nitsche
Giuseppe Intini	Ph.D.	School of Dental Medicine	Libuse Anna Bobek
Xiao Zhihua	Ph.D.	CBE	Sriram Neelamegham
Leonard Effendi	Ph.D.	CBE	Mattheos Koffas
Michael Szymanski	M.S.	MAE	Hui Meng
Rose-Anne Romano	Ph.D.	Biochemistry (UB)	Satrajit Sinha
Zhijie Wang	Ph.D.	MAE	Hui Meng
Gang Liu	Ph.D.	CBE	Sriram Neelamegham
Dananje Marathe	Ph.D.	CBE	Sriram Neelamegham
Dayle Hodge	M.S.	MAE	Hui Meng
Dong Hui	Ph.D.	CBE	Manolis Tzanakakis
Daniel Kehoe	Ph.D.	CBE	Manolis Tzanakakis
Eleni Metaxa	Ph.D.	MAE	Hui Meng
Katie Ann Bush	Ph.D.	BME (WPI/U Mass Med)	George Pins
Folarin Erogbogbo	Ph.D.	CBE	Mark Swihart
Ramanan Sekar	M.S.	CBE	Mattheos Koffas
Karan Prakash Shah	M.S.	CBE	Mattheos Koffas
Jasdeep Mann	Ph.D.	CBE	Sheldon Park
Nandini Mandal	Ph.D.	CBE	Sriram Neelamegham
Lye Lock	Ph.D.	CBE	Manolis Tzanakakis
Tracy Gwyther	Ph.D.	BME (WPI)	Marsha W. Rolle
Alexander Buffone	Ph.D.	CBE	Sriram Neelamegham
Sri Madabhushi	Ph.D.	CBE	Sriram Neelamegham
Pascal R. Beauchesne	Ph.D.	U of British Columbia	James Piret
Mangesh Kulkarni	Ph.D.	Biomaterials Institute (National Univ. of Ireland)	Abhay Pandit
Yukun Li	Ph.D.	CBE	Chong Cheng
Chih Kuang Chen	Ph.D.	CBE	Chong Cheng
Jasdeep Mann	Ph.D.	CBE	Sheldon Park

DEPARTMENT & SCHOOL OF ENGINEERING SERVICE

- Department Chair, UB Chemical and Biological Engineering (Fall 2012 – pres)
- Member, Dean's Administrative Council (2012-pres)
- Member, IT committee, UB Chemical and Biological Engineering, (2012-pres)
- Member, Space Panning Committee, UB Chemical and Biological Engineering, (2010-pres)
- Chair of Faculty Search Committee, Chemical and Biological Engineering, 2011
- Member, Faculty Search Committee, Dept. of Biomedical Engineering, 2010
- Member, External Affairs Committee, UB Chemical and Biological Engineering, 2009-pres *(EAC was assembled to decide on strategies to improve the CBE department image and national rankings)*
- Mentor for junior faculty, UB-SEAS (Mentee Dr. Sheldon Park, 2006-present).
- Chair, Chemical and Biological Engineering Faculty Search Committee, 2006-2007
- Member, Faculty Search Committee, Chemical & Biological Engineering, 2005-2006
- Member, Chemical & Biological Engineering Committee for Revision of Undergraduate Curriculum, 2005-2006
- Member, Chemical & Biological Engineering Undergraduate Committee, 2003-2004
- Member, CBE Undergraduate Awards Committee, 2003-2004
- Co-organizer of CE Research symposium from Fall 1999-2002
- Member of the graduate Qualifying Exam committee, 1999-present
- Member of the Faculty Search Committee (Spring 2000 and Spring 2002)
- Mentor, Undergraduate Chemical Engineering students, UB (1998-present)
- Mentor, University at Buffalo Undergraduate Honors Program (1998 - present)
- Mentor, University at Buffalo, SEAS Freshmen Program

COMMUNITY SERVICE

I participated in the continuing education program of WNY teachers led by Dr. Nancolas. In this framework I gave a lecture to public school teachers entitled: "The construction of artificial organs in the laboratory". It was presented at *The Western New York Science and Technology Forum, University at Buffalo, SUNY,* December 5, 2001.

COURSES TAUGHT

CE 317; Transport Processes-I (undergraduate; 3 credit hours) Fall 2008 (45 students), Fall 2011 (64 students)

CE 311; Unit Operations (undergraduate; 3 credit hours) Spring 2000 (40 students), Spring 2001 (44 students), Spring 2002 (55 students), Spring 2003 (38 students), Spring 2004 (50 students), Spring 2005 (46 students), Spring 2006 (31 students)., Spring 2007 (28 students).

CE 429; Chemical Reaction Engineering (undergraduate, 3 credit hours) Fall 1998; (28 students); Fall 1999 (56 Students); Fall 2000 (40 students).

CE 564; Tissue Engineering (cross-listed with BIO 523) (graduate, 3 credit hours) Spring 1999; (12 CE students), Spring 2001 (8 CE students), Spring 2002 (11 CE students), Spring 2004 (8 CE students), Fall 2005 (15 students), Fall 2006 (15 students).

CE 600; Advanced Bioengineering (graduate, 3 credit hours) Spring 2003 (6 students).

EAS 140; Engineering Solutions (undergraduate, 3 credit hours) Fall 2002 (109 students).

CE 630; Research Methods in Chemical and Biological Engineering I (graduate, 3 credit hours) Fall 2003 (7 students), Fall 2004 (7 students), Fall 2005 (7 students), Fall 2006 (8 students), Fall 2007 (11 students), Fall 2010 (14 students).

CE 631; Research Methods in Chemical and Biological Engineering II, Spring 2004 (7 students), Spring 2005 (7 students), Spring 2006 (7 students), Spring 2007 (8 students), Spring 2008 (11 students), Fall 2011 (4 students).

STUDENTS GRADUATED - DEGREES CONFERRED

Four of my students hold tenure-track academic positions and others work for leading pharmaceutical/biotechnology companies.

Students Graduated: PhD. (13), M.S. (11), Post-doctoral Fellows (4)

Current Group Members: Ph.D. (9), M.S. (3), Research Instructor (1)

Dr. Stella Alimperti: Doctor of Philosophy, State University of New York at Buffalo, March 2014.

Thesis title: **"Directing Mesenchymal Stem Cell Fate toward Smooth Muscle Lineage"**
Current position: **Postdoctoral Research Fellow**, Boston University, Boston, MA

Dr. Mao-Shih Liang: Doctor of Philosophy, State University of New York at Buffalo, February, 2014.

Thesis title: **"Engineering the Biomimetic Microenvironment for Vascular Tissue Engineering"**
Current position: Scientist-I, Research & Development, MedImmune LLC, Gaithersburg, MD.

Dr. Roshan Padmashali: Doctor of Philosophy, State University of New York at Buffalo, February, 2013.

Thesis title: **"LENTIVIRUS: fibrin based gene delivery, live cell arrays for high throughput screening and adherens junctions controlled entry"**
Current position: Scientist, Drug Discovery and Biology, Shire Human Genetic Therapies, Shire Way, Lexington, MA

Dr. Hao Fan (Eric) Peng: Doctor of Philosophy, State University of New York at Buffalo, January 2012.

Thesis title: **"Tissue-Engineered Arterial Substitute for Cardiovascular Regeneration"**
Current position: Senior Scientist, Research & Development, Biogen Idec, North Carolina, Feb 2012-pres.

Dr. Ju Hee Han: Doctor of Philosophy, State University of New York at Buffalo, February 2012.

Thesis title: **"Restoring the function of Aged Mesenchymal Stem Cells for Vascular Tissue Engineering"**
Current position: **Postdoctoral Research Fellow**, US Army Institute of Surgical Research (USAISR), Fort Sam Houston, TX 78234

Dr. Meng Horng Lee: Doctor of Philosophy, State University of New York at Buffalo, Aug 2010.

Thesis title: **"JNK-mediated Regulation of Adherens Junctions and Lentiviral Infection"**
Current position: **Post-doctoral Fellow**, Department of Chemical and Biomolecular Engineering, Johns Hopkins University.

Dr. Jun Tian: Doctor of Philosophy, State University of New York at Buffalo, May 2010.
Thesis title: **"Engineering Lentiviral Vectors for Gene Therapies and for Development of Live Cell Arrays for High-throughput and Real-time Gene Expression Analysis"**
Current position:
Scientist, Process Sciences Group, Bristol-Myers Squibb (BMS), Syracuse, NY, Nov 2011-present
Previous position:
Scientist III, Molecular Biology, Life Technologies (Invitrogen), Grand Island, NY, May 2010-Nov 2011

Dr. Piyush Koria: Doctor of Philosophy, State University of New York at Buffalo, February 2007.
Thesis title: **"Cellular Processes involved in Epidermal Morphogenesis & Wound Repair and Regeneration"**
Current position:
- **Assistant Professor,** Department of Chemical and Biomedical Engineering, University of South Florida, Aug 2010 - pres

Previous position:
- **Post-doctoral fellow**, Massachusetts General Hospital, Harvard Medical School, 2007-2010

Dr. Raghvendra Singh: Doctor of Philosophy, State University of New York at Buffalo, February 2008.
Thesis title: **"EGFR signaling in retrovirus mediated gene transfer and cell-scattering"**
Current position:
- **Assistant Professor**, Department of Chemical Engineering, Indian Institute of Technology-Kanpur (IIT-Kanpur), 2009-

Previous position:
- Post-doctoral fellow, Department of Pathology, Johns Hopkins University School of Medicine, 2008-2009.

Dr. Daniel D. Swartz: Doctor of Philosophy, State University of New York at Buffalo, December 2003.
Thesis title: **"Development of a fibrin-based tissue-engineered blood vessel for implantation"**
Current position:
- **Assistant Professor**, Department of Pediatrics, University at Buffalo, State University of New York, Buffalo, NY.

Dr. Pedro Lei: Doctor of Philosophy, State University of New York at Buffalo, August 2004.

Thesis title: **"Novel strategies in retroviral production, purification and transduction for gene therapy: application in tissue engineered skin for treatment of Type I Diabetes"**

Current position:

- **Research Instructor,** Department of Chemical and Biological Engineering, State University of New York at Buffalo, Buffalo, NY.

Dr. David J. Geer: Doctor of Philosophy, State University of New York at Buffalo, November 2004.

Thesis title: **"Tissue engineered models of skin regeneration for the design and evaluation of novel drug-release systems"**

Current position:

- **Senior Scientist,** Research & Development, Merck Research Laboratories, West Point, PA 19486

Dr. Bharat G. Bajaj: Doctor of Philosophy, State University of New York at Buffalo, February 2005.

Thesis title: **"Retroviral Gene Transfer to Stem Cells of the Human Epidermis"**

Current position:

- **Post-doctoral fellow**, Dept of Microbiology, University of Pennsylvania Medical School, 2005-2010
- **Vice President,** Loan Portfolio Management at RBC Capital Markets, Investment Banking Platform of the Royal Bank of Canada, 30th Floor, RBC Plaza, 200 Bay Street, Toronto, ON, Canada

Post-Doctoral Associates

Dr. Jinyu Liu, Ph.D.: Post-doctoral Associate, 2004-2008

Current position:

- **Professor**, Institute of Lung, Heart and Blood Vessel Diseases, Anzhen Hospital, The Capital University of Medical Sciences
  Anzhen Road 2, Beijing, 100029, China

Dr. Liana Lugo, MD: Post-doctoral Associate, 2007-2008

Title: "In situ skin regeneration by application of epidermal cells on pre-vascularized wound bed"

Current position: **Resident of Surgery**, School of Medicine, University at Buffalo, State University of New York

Dr. Hui You, MD/Ph.D.: Post-doctoral Associate, 2010-2013

Title: "JNK, mechanical microenvironment and adherens junctions in epithelial cells and engineered tissues", and "Lentivirus microarrays for real-time monitoring MSC differentiation"

Current position: **Senior Research Scientist**, Allergan Pharmaceuticals, Irvine, CA

Dr. Pedro Lei, Ph.D.: Post-doctoral Associate, 2004-2006

Current position: **Instructor of Chemical and Biological Engineering**, University at Buffalo, State University of New York

Masters of Science Students

Seoyoung Son: Masters of Science, State University of New York at Buffalo, Dec 2013.
Thesis title: **"Non-viral, high-efficiency DNA delivery for transient Nanog overexpression in mesenchymal stem cells using magnetofection"**
Current position: Ph.D. Candidate at Penn State University

Randall Smith: Masters of Science, State University of New York at Buffalo, Dec 2013.
Thesis title: **"VEGF Mediated Capture of Endothelial Cells under Flow"**
Current position: Ph.D. Candidate in my group

Evan Schlaich: Masters of Science, State University of New York at Buffalo, July 2012.
Thesis title: **"Mechanical conditioning and the vascular remodeling potential of small intestine submucosa based grafts"**
Current position: Associate Scientist I, Global Manufacturing and Supply Biologics Manufacturing and Process Development, Bristol-Myers Squibb (BMS), Hopewell site, Pennington NJ, March 2013-present

Aishwarya Arangana: Masters of Science, State University of New York at Buffalo, January 2012.
Thesis title: **"Adherens junctions in epithelial cells and in bioengineered tissues"**
Current position: Meso Scale Discovery, Gaithersburg, Maryland, June 2012 – pres.

Siddhita Gopinath: Masters of Science, State University of New York at Buffalo, December 2008.
Thesis title: "**Multipotent human hair follicle stem cells for cardiovascular tissue engineering"**
Current position: Invitrogen Corporation, Molecular Probes Division, Eugene, Oregon

Shruti Raut: Masters of Science, State University of New York at Buffalo, December 2008.
Thesis title: "**Use of Fibrin Hydrogels for Localized and Cell-Controlled Lentiviral Gene Delivery"**
Current position: Merck Research Laboratories, Boston, Massachusetts

Deepa Makkar: Masters of Engineering, State University of New York at Buffalo, December 2006.
Thesis title: **"Retroviral gene transfer with immobilized retrovirus particles"**
Current position: Process Engineer, Flownamics Inc., Madison, Wisconsin

Lan Yao: Masters of Science, State University of New York at Buffalo, October 2006.
Thesis title: **"Tissue Engineering of Implantable Small-Diameter Blood Vessels using Fibrin as Scaffold"**

Adebimpe Ogunade: Masters of Science, State University of New York at Buffalo, February 2006.
Thesis title: **"Regulatable Insulin Delivery through Tissue Engineered Skin"**
Current position: Research Engineer, Kimberly Clark, Nina, Wisconsin

Shahram Behshad: Masters of Science, State University of New York at Buffalo, July 2001.
Thesis title: **"Retroviral Transduction of Epidermal Keratinocytes on Fibronectin"**
Current position: Research Engineer, Naval Surface Warfare Center, Indian Head Division.

Pulari Thaganvelu: Masters of Engineering, State University of New York at Buffalo, June 2014
Project title: **"Intercellular adhesion in MSC spheroid formation and differentiation"**,

CURRENT GRADUATE STUDENTS (10 Ph.D, 3 M.S., 1 Research Instructor)

Ph.D. Candidates

Vivek Bajpai: "Vascular Tissue Engineering from Hair Follicle Stem Cells", (Chemical and Biological Engineering); Ph.D. Expected Dec 2014.

Panagiotis Mistriotis: "The Role of Nanog in MSC senescence", (Chemical and Biological Engineering); PhD Expected June 2015.

Janhavi Moharil: "High-throughput, real-time dynamic monitoring of stem cell differentiation", (Chemical and Biological Engineering); Ph.D. Expected June 2015.

Sindu Row: "Bone Marrow Stem Cells for Vascular Tissue Engineering: Effect of Organismal Aging", (Chemical and Biological Engineering); Ph.D. Expected Dec 2015.

Maxwell Koobatian: "Novel Strategies for Engineering Off-the-Shelf Vascular Grafts", (Physiology and Biophysics); Ph.D. Expected June 2015

Randall Smith: "Development of off-the-shelf vascular grafts", (Biomedical Engineering); Ph.D. Expected in 2017.

Yayu Liu: "Microfluidic platforms for Lentiviral MicroArrays", (Chemical and Biological Engineering); Ph.D. Expected in 2018

Aref Shahini: "Stem cells for vascular bioengineering", (Chemical and Biological Engineering); Ph.D. Expected in 2018

Zahra Chamanzar: "Stem Cell Engineering", (Biomedical Engineering); Ph.D. Expected in 2019.

M.S. Students

Meredith Lang: "Mechanism of Stem cell senescence: implications for tissue regeneration", (Biomedical Engineering); M.S. Expected in 2017.

Na Rong: "Human iPSC for vascular tissue engineering", (Chemical and Biological Engineering); M.S. Expected in 2015.

Xiaoyan Wang: "Microfluidic platforms for lentiviral microarrays", (Chemical and Biological Engineering); M.S. Expected in 2015.

OTHER LABORATORY MEMBERS

Dr. Pedro Lei: **Instructor of Chemical and Biological Engineering**, University at Buffalo, State University of New York

PAST UNDERGRADUATE RESEARCH ASSISTANTS

Student	*Degree*	*Department*	*Current Position*
Chris Bellber	B.S.	Chemical Engineering	UB, Medical School
Trevor McKee	B.S.	Chemical Engineering	PhD, CBE, MIT
Amit Parikh	B.S.	Chemical Engineering	
Sarah C. Karl	B.S.	Chemical Engineering	
Yanling Chen	B.S.	Biol. Sci. (CAMBI)	Grad. Student, Biology, UB
Reecha Wadhwa	B.S.	Biochem. Eng & Biotech.	Senior, IIT, New Delhi, India
Robert Chang	B.S.	Chemical Engineering	Grad Student, U. Rochester
Raymond Cooley	B.S.	Chemical Engineering	Grad Student, UB
Jennifer Leigh	B.S.	Biomed Eng, B-SURE	Jr., BME, Tulane U
Matthew Cole	B.S.	Chemical Engineering	Senior, UB CBE
Jawaad Sheriff	B.S.	Chemical Engineering	Sophomore, UB
Matthew Bizou	B.S.	Chemical Engineering	Senior, UB CBE
Man Yau Tsz	B.S.	Chemical Engineering	Sophomore, UB
Tze-Jan Lin	B.S.	Mech Eng, B-SURE	Junior, UB
Meei Sunn Chin	B.S.	Chemical Engineering	MBA, Malaysia
Adebimpe Ogunade	B.S.	Chemical Engineering	Grad. Student, UB
Nishat Hamid,	B.S.	Chemical Engineering	Senior, UB
Duan Meei Tan,	B.S.	Chemical Engineering	
Tanya Smith	B.S.	Biol. Sci. (IGPBS)	Grad. Stud, Biology, UB
Dan Leo	B.S.	Chemical Engineering	UB Law School
Abhijeet Kholi	B.S.	Chemical Engineering	Merck Research Labs
Chin G. (Ryan) Lim	B.S.	Chemical Engineering	Graduate student, UB
Kok Hong Lim	B.S.	Chemical Engineering	Graduate student, UB
Krystine Santos	B.S.	Chemical Engineering	Junior, UB

Qing Qing Chen	B.S.	Chemical Engineering	Junior, UB
Daniel Vehkter	B.S.	Biology	Yale U (Grad student)
Evan Schlaich	B.S.	Chemical Engineering	Bristol-Myers Squibb, NJ
Tushar Kesavadas		High School senior (2012)	UG at Northwestern U
Natalia Alexandridis		High School senior (2012)	UB UG Engr student
Daniel Brenna	B.S.	UB CBE (2012)	Graduate student
Joseph Marchica	B.S.	UB CBE (2012)	Graduate student
Francis J. Cunningham	B.S.	BME Uof R (Summer 2013)	Junior, U of Rochester
Kevin A. Colman	B.S.	BME Uof R (Summer 2013)	Senior, U of Rochester
Ryan Carpenter	B.S.	UB CBE (F 2013, Sp 2014)	Senior, UB
Francis J. Cunningham	B.S.	BME Uof R (Summer 2014)	Senior, U of Rochester

GRANT SUPPORT
Total grant support received to date: $12,331,573
(Excluding Center grants such WNYSTEM and IGERT where I participated as co-PI)

CURRENT SUPPORT:
Total current support: $4,067,570
(Excluding Center grants such as WNYSTEM where I participated as co-PI)

ACTIVE GRANTS

- **National Institutes of Health (NHLBI, 2R01HL086582-05A1):** "Reversing the effects of donor aging on adult stem cell potential"
  S.T. Andreadis (PI) Dates: 12/17/13-11/30/17 Total Costs: $1,557,588
  D.D. Swartz (co-PI)

- **National Institutes of Health (NIDCR, 1R01DE022971-01):** "The Use of Fibrin Hydrogels to Build an Artificial Salivary Gland" (*MPI grant*)
  S.T. Andreadis (PI) Dates: 07/01/12-06/30/16 Total Costs: $1,542,825
  O. Baker (contact PI)

- **National Institutes of Health (5R44GM084551):** "SBIR: Genetically Modified Tissue Engineered In Vitro Human Models" *(with MatTek Corp.)*
  P. Hayden (PI) Dates: 07/01/12-06/30/14 Total Costs: $483,227
  S.T. Andreadis (co-I) Subcontract to UB: $53,595

- **National Science Foundation (CBET 1403086):** "Cell-cell adhesion and stem cell fate commitment"
  S.T. Andreadis (PI) Dates: 06/01/14-05/31/17 Total Costs: $451,130
  Kwang Oh (co-PI)

- **New York State Stem Cell Science (NYSTEM),** "Western New York Stem Cell Culture and Analysis Center"
  R.M. Gronostajski (PI) Dates: 01/01/11-12/31/16 Total Costs: $3,500,000
  S.T. Andreadis (co-I)

- **IMPACT Award, University at Buffalo:** "Derivation of functional neurons from skin epithelium without genetic factors"
  S.T. Andreadis (PI) Dates: 04/15/14-04/14/15 Total Costs: $32,800
  G. Popescu (co-PI)

PREVIOUS SUPPORT

- **National Institutes of Health (NHLBI, R01 HL086582):** "Stem Cells for Vascular Tissue Engineering"
  P.I.: S.T. Andreadis Dates: 05/01/08-03/31/14 Total Costs: $1,534,659

co-PIs: D.D. Swartz, J.A. Russell

- **National Science Foundation (CBET 0853993):** "High-throughput and live monitoring of MSC differentiation" *(at no cost extension).*
  S.T. Andreadis (PI) Dates: 07/01/09-06/31/14 Total Costs: $600,000

- **New York State Stem Cell Science (NYSTEM, Contract #C024315):** "High-throughput, real-time dynamic monitoring of stem cell differentiation"
  P.I.: S.T. Andreadis Dates: 01/01/09-12/31/12 Total Costs: $1,055,958

- **New York State Stem Cell Science (NYSTEM, Contract #C024316):** "Hair Follicle Stem Cells for Cardiovascular Tissue Regeneration"
  P.I.: S.T. Andreadis Dates: 01/01/09-12/31/12 Total Costs: $1,010,489
  co-PI: D.D. Swartz

- **Life Technologies, Inc.:** "Development of a Novel Culture System to Expand Mesenchymal Stem Cells in Suspension as Spheroids: Implication for MSC-based Therapies"
  P.I.: S.T. Andreadis Dates: 07/01/11-12/31/13 Total Costs: $30,000
  co-PI: Jun Tian (Life Technologies, Inc.)

- **National Science Foundation (DBI 0923133):** "MRI: Acquisition of a Confocal Microscopy System for Research and Education"
  PI: James Berry Dates: 08/31/09-08/31/12 Total Costs: $482,314
  S.T. Andreadis (Co-I)

- **National Institutes of Health (NIBIB, RO1 EB00876):** "Retroviral gene transfer to epidermal stem cells for tissue engineering"
  P.I.: S.T. Andreadis Dates: 02/01/03-01/31/09 Total Costs: $1,506,261

- **The John R. Oishei Foundation:** "Stem Cells for Tissue Engineered Vasculature"
  P.I.: S.T. Andreadis Dates: 04/01/07-03/31/09 Total Costs: $270,000
  co-PI: D.D. Swartz

- **National Institutes of Health (NIH/NIDDK RO1 DK068699):** "Regulated insulin delivery from tissue engineered skin"
  P.I.: S.T. Andreadis Dates: 8/1/04-7/31/07 Total Costs: $498,850
  co-PIs: K.L. Kirkwood, S. Laychock

- **National Science Foundation (BES-0354626):** "Mechanistic Studies on Retroviral Gene Transfer to Epithelial Cells"
  P.I.: S.T. Andreadis Dates: 08/01/04-07/31/07 Total Costs: $419,000

- **National Science Foundation Integrative Graduate Education and Research Training (IGERT):** "Biophotonics: materials and applications" *(multi-investigator grant proposal)*
  P.I.: Alex Cartwright Dates:09/15/01-09/14/06 Total Costs: $2,685,476
  Co P.I.: S.T. Andreadis

- **Juvenile Diabetes Research Foundation (JDRF) International:** "Growth Factors and Angiogenesis in Pancreatic Islet Transplantation"
  P.I.: S. Laychock
  Co-P.I.: S.T. Andreadis Dates: 07/01/05- 06/31/06 Total Costs: $100,000

- **National Science Foundation CAREER:** "Quantitative studies of the rate-limiting steps of retroviral production and transduction to achieve high levels of gene transfer to in vitro skin equivalents"
  P.I.: S.T. Andreadis Dates: 06/01/00-05/31/05 Total Costs: $250,000

- **Sterbutzel Fund, University at Buffalo: "Biomedical Assays Based on Zinc Selenide and Silicon Luminescent Quantum Dots"**
  P.I.:E. Ruckenstein. Dates: 04/01/05-03/31/07 Total Costs: $70,000
  Co-P.Is.: S.T. Andreadis, M.T. Swihart, T.J. Mountziaris.

- **IRCAF Award, University at Buffalo:** "Insulin Gene Delivery with tissue Engineered Skin Equivalents: Development of a Tissue-Based Device for the Treatment of Type-I Diabetes"
  PI: S.T. Andreadis Dates: 03/03/03-02/29/04 Total Costs: $45,000
  co-PIs: K.L. Kirkwood, S. Laychock

- **IRCAF Award, University at Buffalo:** "Stem Cells and Cell Transplantation" *(multi-investigator grant proposal)*
  co-PI: S.T. Andreadis Dates: 03/03/03-02/29/04 Total Costs: $10,000

- **Whitaker Foundation:** "The role of integrins in retroviral gene transfer of epidermal keratinocytes"
  P.I.: S.T. Andreadis Dates: 12/1/02-11/30/03 Total Costs: $79,999

- **IRCAF Award, University at Buffalo:** "Development of a Tissue-Engineered Vascular Graft"
  PI: S.T. Andreadis Dates: 11/01/02-10/31/03 Total Costs: $43,000
  co-PI: J. Russell

- **National Science Foundation CAREER Industrial Matching Funds:** "Quantitative studies of the rate-limiting steps of retroviral production and transduction to achieve high levels of gene transfer to in vitro skin equivalents"
  P.I.: S.T. Andreadis Dates: 6/1/01-5/31/04 Total Costs: $72,000

- **MatTek Corporation:** "Response of engineered skin equivalents to chemical injury"
  P.I.: S.T. Andreadis Dates: 6/1/01-5/31/04 Total Costs: $72,000

- **Whitaker Foundation:** "Engineering gene therapy for human epidermal stem cells"
  P.I.: S.T. Andreadis Dates: 9/1/99-8/31/02 Total Costs: $209,855

PEER REVIEWED PUBLICATIONS

1. S. Row, H.F. Peng, E.M. Schlaich, C. Koenigsknecht, D.D. Swartz and **S.T. Andreadis** (2014). Arterial grafts exhibiting unprecedented cellular infiltration and remodeling in vivo: the role of stem cells in the vascular wall *(In Review).*
2. S. Alimperti and **S.T. Andreadis** (2014) Intercellular Adhesion as a Regulator of Stem Cell Fate Decisions *(In Review).*
3. M. Jeon, H. You, C. Lee, J. Kim, S.T. Andreadis and C. Kim (2014) Elastic Moduli of Neonatal Foreskin Tissue Using Optical Coherence Elastography *Ex Vivo (In Review).*
4. M.T. Koobatian, M.-S. Liang, D.D. Swartz* and **S.T. Andreadis*** (2014) Differential effects of culture senescence and mechanical stimulation on the proliferation and myogenic differentiation of MSC from different sources: implications for engineering vascular grafts *(In Review).*
5. M.T. Koobatian, S. Row, C. Koenigsknecht, **S.T. Andreadis*** and D.D. Swartz* (2014) Surgical technique for the implantation of Tissue Engineered Vascular grafts and subsequent in vivo monitoring. *JoVE* **(Accepted) (* co-corresponding author).**
6. R.M. Padmashali, P. Mistriotis, M.S. Liang, **S.T. Andreadis** (2014). Live-cell dynamic monitoring of gene and pathway activity during stem cell differentiation *Mol. Ther.* doi: 10.1038/mt.2014.103. **[Epub ahead of print]**.
7. S. Alimperti, H. You, T. George, S.K. Agarwal, and **S.T. Andreadis** (2014). Cadherin-11 regulates mesenchymal stem cell differentiation into smooth muscle cells and development of contractile function in vivo. *J. Cell Sci.* **127(Pt 12):** 2627-38.
8. Y. Lu, Y.H. Loh, H. Li, S.B. Ficarro, J. Parikh, J. Yang, **S.T. Andreadis**, J.J. Collins, G.Q. Daley, J.A. Marto (2014). A Self-Sustaining Feedback Loop that Regulates Proteome Diversity and Supports Self-renewal in Pluripotent Stem Cells. *Cell Stem Cell.* **15(1):** 92-101.
9. K.L.K. Coulombe*, V.K. Bajpai* and **S.T. Andreadis** and C.E. Murry (2014). Heart Regeneration with Engineered Myocardial Tissue. *Annual Rev Biomed Eng.* **16:**1-28. **Invited Review** (*: equal contribution).
10. S. Alimperti, Y. Wen, P. Lei, J. Tian, A. Campbell and **S.T. Andreadis** (2014). Serum-free spheroid suspension culture maintains high proliferation and differentiation potentials of mesenchymal stem cells. *Biotech. Prog.* **30(4):** 974-83.
11. H. You, P. Lei and **S.T. Andreadis** (2013). JNK is a novel regulator of intercellular adhesion. *Tissue Barriers* **1(5):** e26845. **Invited Review.**
12. H. You, R. Padmashali, P. Lei, M. Jeon, C. Kim, N. Girnius, R.J. Davis and **S.T. Andreadis** (2013). JNK Regulates Compliance-Induced Adherence Junction Formation in Epithelia in vitro and in vivo. *J. Cell Sci.* **12:** 2718-29.
    - ❖ ***Paper selected to F1000Prime.***
13. M. Ghionzoli, A. Repele A, L. Sartiani, G. Costanzi, A. Parenti, V. Spinelli, A.L. David, M. Garriboli, G. Totonelli, E. Cerbai, **S.T. Andreadis**, A. Mugelli, A. Messineo, A. Pierro, S. Eaton, P. De Coppi (2013). Human amniotic fluid stem cell differentiation along smooth muscle lineage. *FASEB J.* **27(12):** 4853-65.
14. D.D. Swartz and **S.T. Andreadis** (2013). Animal models for vascular tissue engineering. *Curr. Opin. Biotechnol.* 1669(13): 00119-5
15. R. Padmashali, H. You, N. Karnik, and **S.T. Andreadis** (2013). Adherens junction formation inhibits lentivirus entry and gene transfer. *PLoS One* **8(11):** e79265.

16. M.S. Liang, M.T. Koobatian, P. Lei, D.D. Swartz and **S.T. Andreadis** (2013). Differential and synergistic effects of mechanical stimulation and growth factor presentation on vascular wall function. *Biomaterials* **34(30):** 7281-91.
17. A.D. McCall, J.W. Nelson, N.J. Leigh, M.E. Duffey, P. Lei, **S.T. Andreadis**, O.J. Baker (2013). Growth factor enriched fibrin hydrogels promote salivary gland differentiation. *Tissue Eng.* **19(19-20):** 2215-25.
18. **S.T. Andreadis** (2013). Give your heart a chance: match the muscle to the vessel. *Cardiovasc. Res.* **98(1)**: 1-2.
19. X. He, R. Dziak, X. Yuan, R. Genco, M. Swihart, D. Sarkar, C. Li, C. Wang, L. Lu, **S.T. Andreadis**, S. Yang (2013). BMP2 genetically engineered MSCs and EPCs promote vascularized bone regeneration in rat critical-sized calvarial bone defects. *PLoS One.* **8(4):** e60473.
20. P. Lei, H. You and **S.T. Andreadis** (2013). Bioengineered Skin Substitutes. *Methods Mol. Biol.* **1001:** 267-78.
21. P. Mistriotis and **S.T. Andreadis** (2013). Hair Follicle Stem Cells: Potential for Tissue Engineering and Regenerative Medicine. *Tissue Eng. (Part B)* **19(4)**: 265-78.
22. C-K Chen, C.H. Jones, P. Mistriotis, Y. Yu, X. Ma, A. Ravikrishnan, M. Jiang, **S.T. Andreadis,** B.A. Pfeifer and C. Cheng (2013). Poly(ethylene glycol)-block-Cationic Polylactide Nanocomplexes of Differing Charge Density for Gene Delivery. *Biomaterials* **34(37):** 9688-99.
    - ❖ ***Highlighted in Cord Blood News 5.35***.
23. P. Mistriotis and **S.T. Andreadis** (2013). Hair Follicle: A Novel Source of Stem Cells for Cell and Gene Therapy. **In Emerging Trends in Cell and Gene Therapy,** Ed. Mahato Ram, Springer Verlag.
24. J. Han, P. Lei, D. Wang, S. Liu and **S.T. Andreadis** (2012). Nanog reverses the effects of organismal aging on mesenchymal stem cell proliferation and myogenic differentiation potential. *Stem Cells* **30(12):** 2746-59.
25. V.K. Bajpai, P. Mistriotis, Y.H. Loh, G.Q. Daley and **S.T. Andreadis** (2012). Functional Vascular Smooth muscle cells Derived From Human Induced Pluripotent Stem Cells Via Mesenchymal Stem Cell Intermediates. *Cardiovasc. Res.* **96(3):** 391-400.
26. V.K. Bajpai, P. Mistriotis and **S.T. Andreadis** (2012). Clonal multipotency and effect of long-term in vitro expansion on differentiation potential of human hair follicle derived mesenchymal stem cells. *Stem Cell Research* **8(1):** 74-84.
27. V. Bajpai and **S.T. Andreadis** (2012). Stem Cell Sources for Vascular Tissue Engineering and Regeneration. *Tissue Eng. (Part B)* **18(5): 405-425**.
28. S. Alimperti, P. Lei, J. Tian and **S.T. Andreadis** (2012). A novel lentivirus for quantitative assessment of gene knockdown in stem cell differentiation. *Gene Therapy* **19(9):** 957.
29. H.F. Peng, E. Schlaich, Row, S., **S.T. Andreadis*** and D.D. Swartz* (2012). A Novel Ovine ex vivo Arteriovenous Shunt Model to Test Vascular Implantability. *Cells Tissues Organs*, **195(1-2):** 108-21. *Special Emphasis Issue on Cardiovascular Regenerative Biology.* **(* co-corresponding author)**
30. J. Wang, P. Lei, **S.T. Andreadis** and T. J. Mountziaris (2012). Detection of DNA Hybridization via Fluorescence Intensity Variations of ZnSe-DNA Quantum Dot Biosensors. *Analytical Letters* **45(2-3)** 227-241.

31. M.H. Lee, R. Padmashali, P. Koria and **S.T. Andreadis** (2011). JNK regulates binding of alpha-catenin to adherens junctions and cell-cell adhesion. *FASEB J.* **25(2):** 613-623.
32. M.H. Lee, R. Padmashali and **S.T. Andreadis** (2011). JNK signaling is necessary for lentivirus entry and gene transfer. *Journal of Virology* **85(6):** 2657-2665.
33. M. Liang and **S.T. Andreadis** (2011). Engineering fibrin-binding TGF-β1 for sustained signaling and contractile function of MSC based vascular constructs. *Biomaterials* **32(33):** 8684-93.
34. R. Padmashali and **S.T. Andreadis** (2011). Engineering fibrinogen-binding VSV-G envelope for spatially- and cell-controlled lentivirus delivery through fibrin hydrogels. *Biomaterials* **32(12):** 3330-9.
35. H.F. Peng, J.Y. Liu, D.D. Swartz and **S.T. Andreadis** (2011). Hair follicle derived smooth muscle cells for engineering mechanically robust and vasoreactive vascular media. *Tissue Eng. (Part A)* **17(7-8):** 981-90.
36. L.M. Lugo, P. Lei and **S.T. Andreadis** (2011). Vascularization of the dermal support enhances wound reepithelialization by in situ delivery of epidermal keratinocytes. *Tissue Eng. (Part A)* **17(5-6):** 665-75.
37. J. Han, J.Y. Liu, D.D. Swartz and **S.T. Andreadis** (2010). Molecular and functional effects of organismal aging on smooth muscle cells derived from bone marrow mesenchymal stem cells, *Cardiovasc. Res.* **87(1):** 147-55.
38. S. Raut, Lei, P. and **S.T. Andreadis** (2010). Fibrin-mediated lentiviral gene transfer: implications for lentiviral microarrays, *J. Control. Release* **144(2):** 213-20.
39. J.Y. Liu, H.F. Peng, S. Gopinath, J. Tian and **S.T. Andreadis** (2010). Derivation of functional smooth muscle cells from multipotent human hair follicle mesenchymal stem cells, *Tissue Eng. (Part A)* **16(8):** 2553-64.
40. J. Tian, S. Alimperti, P. Lei and **S.T. Andreadis** (2010). Lentiviral microarrays for real-time monitoring of gene expression dynamics. *Lab on a Chip* **10(15):** 1967-75.
41. Meng-Horng Lee, P. Koria and **S.T. Andreadis** (2009). JNK binds to and regulates adherens junctions. *FASEB J.* **23(11):** 3874-83.
42. Singh and **S.T. Andreadis** (2009). PKC-δ binds to E-cadherin and mediates EGF-induced cell scattering. *Exp. Cell Res.* **315:** 2899 - 2913.
43. J. Tian and **S.T. Andreadis** (2009). Independent and high-level dual-gene expression in adult stem-progenitor cells from a single lentiviral vector. *Gene Therapy* **16(7):** 874-84.
44. P. Lei, R. Padmashali and **S.T. Andreadis** (2009). Cell-Controlled and Spatially Arranged Gene Delivery from Fibrin Hydrogels, *Biomaterials* **30(22):** 3790-9.
45. R. Singh, J.M. Nitsche and **S.T. Andreadis** (2009). An integrated reaction-transport model for DNA surface hybridization: implications for DNA microarrays. *Ann. Biomed. Eng.* **37(1):** 255-69.
46. J.Y. Liu, H.F. Peng and **S.T. Andreadis** (2008). Contractile smooth muscle cells derived from hair follicle stem cells. *Cardiovasc. Res.* **79(1):** 24-33.
47. J. Tian, P. Lei, S.G. Laychock and **S.T. Andreadis** (2008). Regulated Insulin Delivery from Human Epidermal Cells Reverses Hyperglycemia. *Mol. Ther.* **16(6):** 1146-1153.
48. P. Lei and **S.T. Andreadis** (2008). Efficient retroviral gene transfer to epidermal stem cells. *Methods Mol. Biol.* **434:** 367-380
49. L. Yao, J.Y. Liu and **S.T. Andreadis** (2008). Composite fibrin scaffolds increase mechanical strength and preserve contractility of tissue engineered blood vessels. *Pharm. Res.* **25(5):** 1212-21.

50. P. Koria and **S.T. Andreadis** (2007). KGF promotes integrin alpha-5 expression through CCAAT/enhancer-binding protein-beta. *Am J. Physiol. Cell Physiol.,* **293(3):** C1020-31.
51. J.Y. Liu, D.D. Swartz, H.F. Peng, S.F. Gugino, J.A. Russell and **S.T. Andreadis** (2007). Functional tissue-engineered blood vessels from bone marrow progenitor cells, *Cardiovasc. Res.* **75(3):** 618-628.
52. R. Singh and **S.T. Andreadis** (2007). EGF receptor activation decreases retroviral gene transfer through protein kinase C delta. *Mol. Ther.* **15(2):** 369-377.
53. P. Lei, A. Ogunade, K.L. Kirkwood, S.G. Laychock and **S.T. Andreadis** (2007). Efficient production of bioactive insulin from human epidermal keratinocytes and tissue engineered skin substitutes: implications for treatment of diabetes. *Tissue Eng.* **13(8):** 2119-2131.
54. **S.T. Andreadis** (2007). Gene-modified tissue-engineered skin: the next generation of skin substitutes. *Adv. Biochem. Eng. Biotechnol.* **103:** 241-74.
55. K.G. Cornwell, P. Lei, **S.T. Andreadis** and G.D. Pins (2007). Crosslinking of discrete self-assembled collagen threads: effects on mechanical strength and cell-matrix interactions. *J. Biomed. Mater. Res. A.* **80(2):** 362-371.
56. **S.T. Andreadis** (2006). Experimental models and high throughput diagnostics for tissue regeneration. *Expert Opin. Biol. Ther.* **6(11):** 1071-86.
57. **S.T. Andreadis** and D.J. Geer (2006). Biomimetic approaches to protein and gene delivery for tissue regeneration. *Trends Biotechnol.* **24(7):** 331-337.
58. P. Koria and **S.T. Andreadis** (2006). Epidermal morphogenesis: the transcriptional program of human keratinocytes during stratification. *J. Invest. Dermatol.* **126(8):** 1834-41.
59. **S.T. Andreadis** (2006). Gene therapy in tissue engineering: the next generation skin substitutes. In "*Tissue Engineering II"*, Kyongbum Lee and David Kalpan (Eds), Springer Verlag, pp. 241-274.
60. **S.T. Andreadis** (2006). Gene therapy for tissue regeneration. In "*Handbook of Biodegradable Polymeric Materials and Their Applications"*, S.K. Mallapragada and B. Narasimhan (Eds), American Scientific Publishers, **Chapter 7:** 125-140.
61. D.J. Geer, D.D. Swartz and **S.T. Andreadis** (2005). Biomimetic delivery of KGF upon cellular demand for accelerated wound healing in vitro and in vivo. *Am. J. Pathol.* **167(6):** 1575-86.
62. L. Yao, D.D. Swartz, Sylvia Guigino, J.A. Russell, and **S.T. Andreadis** (2005). Fibrin-based tissue engineered blood vessels: differential effects of biomaterial and culture parameters on mechanical strength and vasoreactivity. *Tissue Eng.* **11(7-8):** 991-1003.
63. D.D. Swartz, J.A. Russell and **S.T. Andreadis** (2005). Tissue engineering of functional and implantable small diameter blood vessels. *Am. J. Physiol. Heart and Circulatory Physiology,* **288(3):** H1451-1460.
64. P. Lei and **S.T. Andreadis** (2005). Stoichiometric limitations in assembly of active recombinant retrovirus. *Biotechnol. Bioeng.* **90(7):** 781-92.
65. B.G. Bajaj, P. Lei and **S.T. Andreadis** (2005). Efficient gene transfer to human epidermal keratinocytes: *in vitro* evidence for transduction of epidermal stem cells. *Mol. Ther.* **11(6):** 969-979.
66. **S.T. Andreadis** (2004). Gene transfer to epidermal stem cells: implications for tissue engineering. *Expert Opin. Biol. Ther.* **4(6):** 1-18.

67. D.J. Geer, D.D. Swartz and **S.T. Andreadis** (2004). An in vivo model of wound healing based on transplanted tissue engineered skin. *Tissue Engr.* **10(7/8):** 1006-1017.
68. D.J. Geer and **S.T. Andreadis** (2003). A novel role of fibrin in epidermal healing: plasminogen-mediated migration and selective detachment of differentiated keratinocytes. *J. Invest. Dermatol.* **121(5):** 1210-1216.
69. **S.T. Andreadis** (2004). Gene Enhanced Tissue Engineering. In "*Biomedical Technology and Devices Handbook"*, James Moore and George Zouridakis (Eds), CRC Press, **Chapter 19:** 1-27.
70. K.L. Kirkwood, T. Martin, **S.T. Andreadis** and Y.J. Kim (2003). Chemically modified tetracyclines selectively inhibit IL-6 expression in osteoblasts by decreasing mRNA stability. *Biochem. Pharmacol.* **66(9):** 1809-19.
71. P. Koria, D. Brazeau, K.L. Kirkwood, P. Hayden, M. Klausner, and **S.T. Andreadis** (2003). Gene expression profile of tissue engineered skin subjected to acute barrier disruption. *J. Invest. Dermatol.* **121(2):** 368-382.
72. **Andreadis, S.T** and Morgan, J.R. (2002). Methods for the Quantitative Measurement of the Concentration of Active Recombinant Retrovirus. In "Gene Therapy Protocols" 2nd Edition, Morgan, J.R. (Ed.), Humana Press, Totowa, N.J., Chapter **13;** 161-172.
73. B.J. Bajaj, S. Behshad and **S.T. Andreadis** (2002). Retroviral gene transfer to human epidermal keratinocytes correlates with integrin expression and is significantly enhanced on fibronectin. *Hum. Gene Ther.* **13(15):** 1821-1831.
74. P. Lei, B. Bajaj and **S.T. Andreadis** (2002). Retrovirus-associated heparan sulfate mediates immobilization and gene transfer on recombinant fibronectin. *J. Virol.* **76(17):** 8722-8728.
75. D.J. Geer, D. Swartz and **S.T. Andreadis** (2002). Fibrin promotes migration in a 3-dimensional in vitro model of wound regeneration. *Tissue Engr.* **8(5):** 787-798.
76. **Andreadis S.T.** and Morgan JR. (2002). Quantitative measurement of the concentration of active recombinant retrovirus. *Methods Mol Med.* **69:** 161-72.
77. B. Bajaj, P. Lei and **S.T. Andreadis** (2001). High efficiencies of gene transfer with immobilized recombinant retrovirus: kinetics and optimization. *Biotech. Prog.* **17(4):** 587-596.
78. **Andreadis, S.**, Hamoen, K., Yarmush, M.L. and Morgan, J.R. (2001). Keratinocyte growth factor induces hyperproliferation and delays differentiation in a skin equivalent model system. *FASEB J.* **15(6):** 898-906.
79. **Andreadis, S.**, Lavery, T., LeDoux, J.M., Davis, H.E., Yarmush, M.L. and Morgan, J.R. (2000). Towards a more accurate quantitation of the activity of recombinant retroviruses: alternatives to MOI and titer. *J. Virol.* **74(7):** 3431-3439.
80. **Andreadis, S.**, Roth, C.M., LeDoux, J.M., Morgan, J.R. and Yarmush, M.L. (1999). large scale manufacturing of recombinant retroviruses for gene therapy. *Biotech. Prog.* **15(1):** 1-11.
81. **Andreadis, S.** and Palsson, B.O. (1998). Intracellular stability of retroviral vectors: mathematical modeling and kinetic experiments. *Cancer Research Therapy & Control* **7 (1-2):** 77-85.
82. **Andreadis, S.**, Fuller, A.O. and Palsson, B.O. (1998). Cell cycle dependence of retroviral vectors: an issue of overlapping time-scales. *Biotech. & Bioeng.* **58:** 272-281.
83. Palsson, B.O. and **Andreadis, S.** (1997). Physicochemical and kinetic factors in retrovirus-mediated gene transfer. *Exp. Hematol.* **25(2):** 94-102.

84. **Andreadis, S.** and Palsson, B.O. (1997). Coupled effects of polybrene and calf serum on the efficiency of retroviral transduction and the stability of retroviral vectors. *Hum. Gene Ther.* **8(3):** 285-291.
85. **Andreadis, S.**, Brott, D., Fuller, A.O. and Palsson, B.O. (1997). MMuLV-derived retroviral vectors decay intracellularly with a half-life in the range of 5.5-7.5 hours. *J. Virol.* **71:** 7541-7548.
86. **Andreadis, S.**, and Palsson, B.O. (1996). Kinetics of retrovirus mediated gene transfer: the importance of intracellular stability of retroviruses. *J. Theor. Biol.* **182:** 1-20.

PAPERS IN REFEREED CONFERENCE PROCEEDINGS

87. Hun Lee, Sindhu Row, Linfeng Xu, **Stelios T. Andreadis**, and Kwang W. Oh. A simple and robust fabrication of microwell array by PDMS on a glass substrate for cell-to-cell adhesion, *NSTI-Nanotech 2014*, **Vol. 2:** pp. 145-148, 2014.
88. H. Kandarova, P.J. Hayden, G.R. Jackson, P. Lei, J. Bolmarcich, J. Oldach, A. Armento, **S. Andreadis,** M. Klausner, "Organotypic in vitro models with engineered gene knockdown or reporter functions", *Toxicology Letters,* **211**: S112-S112, June 17, 2012.
89. P. Hayden, C.E. Mankus, P. Lei, G.R. Jackson, J. Bolmarcich, A. Armento, **S. Andreadis,** M. Klausner, "Organotypic in vitro human epithelial models with engineered gene knockdown or mechanistic reporter functions", *J. Invest. Dermatol.* **132**: S13-S13, May, 2012
90. J. Tian, S. Allimperti, P. Lei, **S.T. Andreadis,** "Lentiviral Microarrays for High-Throughput and Real-Time Monitoring of Gene Expression Dynamics", *Mol. Ther.* **18 (Supplement 1):** S139*,* May, 2010.
91. R. Padmashali, P. Lei, **S.T. Andreadis,** "Fibrin-Conjugated Pseudotyped Lentivirus for Cell-Controlled and Spatially Localized Gene Delivery on Microarrayed Surfaces", *Mol. Ther.* **18 (Supplement 1):** S139*,* May, 2010.
92. M.H. Lee, R. Padmashali, **S.T. Andreadis**, "The Role of JNK in Lentivirus Gene Transfer", *Mol. Ther.* **18 (Supplement 1):** S107*,* May, 2010.
93. J. Tian, P. Lei, S.G. Laychock and **S.T. Andreadis**, "Regulated Secretion of Insulin from Genetically Modified Epidermal Stem Cells for Treatment of Diabetes", *Mol. Ther.* **16 (Supplement 1):** S30-S31*,* May, 2008.
94. J. Wang, T. Heckler, B.C. Mei, P. Lei, **S.T. Andreadis**, T.J. Mountziaris, "DNA hybridization detection using zinc selenide nanocrystals as active sensors" *AIChE Annual Meeting, Conference Proceedings*, *AIChE100 - 2008 AIChE Annual Meeting, Conference Proceedings* (2008).
95. J. Wang, P. Lei, **S.T. Andreadis**, T. Heckler, B. Mei, Q. Qiu, and T.J. Mountziaris (2007). DNA Hybridization Detection using Fluorescent Zinc Selenide Quantum Dots *Mater. Res. Soc. Symp. Proc.* **951:** E03-01 (2007).
96. J. Wang, **S.T. Andreadis** and T.J. Mountziaris, "Synthesis, Surface Functionalization, and Clinical Diagnostic Applications of Zinc Selenide Quantum Dots" *Materials Research Society Symposium Proceedings, Symposium Y: Nanostructured Probes for Molecular Bio-Imaging, Y2.7* (2006).
97. F. Hua, L. Yao, **S.T. Andreadis**, E. Ruckenstein (2005). Biocompatible conducting PLLA or PLGA-grafted polyaniline as novel cell-culture substrates. *PMSE Preprints*, **93:** 721-722.

98. **S.T. Andreadis,** "Insulin Delivery through Genetically Modified Living Skin Equivalents for Treatment of Diabetes", *ET 2005: Engineering Tissues Conference,* Sea Pines Plantation, Hilton Head, SC, March 9-13, 2005, p. 18.
99. L. Yao, D.D. Swartz, J.A. Russell and **S.T. Andreadis,** "Fibrin-based tissue engineered blood vessels: differential effects of biomaterial and culture parameters on mechanical strength and vascular reactivity", *ET 2005: Engineering Tissues Conference,* Sea Pines Plantation, Hilton Head, SC, March 9-13, 2005 p. 43.
100. D.J. Geer, J. Liu, D.D. Swartz and **S.T. Andreadis,** "Cell-Controlled Delivery of Keratinocyte Growth Factor Promotes Wound Healing In Vitro and In Vivo ", *ET 2005: Engineering Tissues Conference,* Sea Pines Plantation, Hilton Head, SC, March 9-13, 2005 p. 23.
101. Wang, Jun. **Andreadis**, **Stelios**. Mountziaris, T J. "Functionalized ZnSe quantum dots as luminescent tags in high-throughput biological assays" *AIChE Annual Meeting, Conference Proceedings p. 8343-8346* (2004)
102. D.J. Geer, D.D. Swartz, **S.T. Andreadis**, "Cell-controlled delivery of keratinocyte growth factor for accelerated healing of skin wounds in vivo" *Materials Research Society Symposium Proceedings, Architecture and Application of Biomaterials and Biomolecular Materials v EXS. n 1 p 17-21* (2004).
103. D.D. Swartz, J. Russell, **S.T. Andreadis,** "Tissue-engineering of functional small-diameter vessels", *Tissue Engineering*, Cold Spring Harbor Laboratory, Eds Guilak, F. and Tuan R., Cold Spring Harbor, NY, p. 28 (2002).
104. P. Koria, D. Brazeau, P. Hayden & **S.T. Andreadis,** "Functional genomics in tissue engineering: gene expression profile of engineered skin equivalents subjected to barrier disruption", *Tissue Engineering*, Cold Spring Harbor Laboratory, Eds Guilak, F. and Tuan R., Cold Spring Harbor, NY, p. 32 (2002).
105. B.G. Bajaj & **S.T. Andreadis,** "Retroviral gene transfer of epidermal stem cells on extracellular matrix", *Tissue Engineering*, Cold Spring Harbor Laboratory, Eds Guilak, F. and Tuan R., Cold Spring Harbor, NY, p. 61 (2002).
106. D.J. Geer & **S.T. Andreadis,** "Fibrin-mediated delivery of KGF in 2D and 3D models of wound regeneration", *Annual International Conference of the IEEE Engineering in Medicine and Biology - Proceedings. v 1 2002. p 481-483 (IEEE cat n 02ch37392)* (2002).
107. P. Lei & **S.T. Andreadis,** "Rate-limiting steps in retrovirus production and gene transfer", *Annual International Conference of the IEEE Engineering in Medicine and Biology - Proceedings. v 1 2002. p 543-545 (IEEE cat n 02ch37392)* (2002).
108. B. Bajaj & **S.T. Andreadis,** "Efficient retroviral gene transfer to epidermal stem cells on recombinant fibronectin", *Annual International Conference of the IEEE Engineering in Medicine and Biology - Proceedings. v 1 2002. p 561-562 (IEEE cat n 02ch37392)* (2002).
109. P. Koria, D. Brazeau, P. Hayden & **S.T. Andreadis,** "Gene Expression Profiling in Engineered Skin Substitutes Subjected to Chemical Injury: Protective Effects of Keratinocyte Growth Factor", *Annual International Conference of the IEEE Engineering in Medicine and Biology - Proceedings. v 1 2002. p 775-777 (IEEE cat n 02ch37392)* (2002).
110. D.D. Swartz, J. Russell, **S.T. Andreadis,** "Development of fibrin-based tissue engineered vessels", *Annual International Conference of the IEEE Engineering in*

Medicine and Biology - Proceedings. v 1 2002. p 868-870 (IEEE cat n 02ch37392) (2002).

111. P. Lei, B. Bajaj and **S.T. Andreadis** "Immobilization of Recombinant Retrovirus to Fibronectin for Gene Transfer: Factors that Mediate Virus Binding", *In* Focus on Viral Vaccines & Gene Therapy*, Pharmaceuticals & Biotechnology: Discovery, Development, & Delivery of Medicine, AIChE Proceedings* (2001).
112. **S.T. Andreadis** and S. Behshad "Retroviral gene transfer to epidermal cells correlates with stem cell phenotype", *Annals of Biomedical Engineering*, 29(S1), p.99 (2001).
113. **S.T. Andreadis,** P. Lei and B.G. Bajaj "Mechanistic studies of retrovirus gene transfer on recombinant fibronectin", *Annals of Biomedical Engineering,* 29(S1), p.97 (2001).
114. **S.T. Andreadis,** D.J. Geer "Effects of fibrin on cell migration and differentiation during wound healing of skin equivalents", *Annals of Biomedical Engineering,* 29(S1), p.150 (2001).
115. B. Bajaj, P. Lei & **S.T. Andreadis** "Interaction of recombinant retroviruses with fibronectin yields high efficiencies of gene transfer" *Annals of Biomedical Engineering. v 28 n SUPPL. 1, p S-24* (2000).
116. **Andreadis, S.**, Yarmush, M.L. & Morgan, J.R. "Effects of keratinocyte growth factor on *in vitro* engineered, genetically modified human epidermis: paracrine versus autocrine actions", *Proceedings of the Annual Conference on Engineering in Medicine & Biology. v 1 1999. p 132* (1999).
117. **Andreadis S.**, Palsson, B.O. The rate of intracellular decay of MuLV-derived retroviral vectors has a half-live in the range of 5.5 to 7.5 hours in 3T3 cells, *BLOOD* **88: (10)** 528-528 (Part 1 Suppl.) (1996).

PAPERS IN PREPARATION

118. J. Moharil, P. Lei, and **S.T. Andreadis** (2014). Lentiviral microarrays for high throughput monitoring of gene expression during MSC differentiation along the myogenic lineage.
119. M. Koobatian, M. Liang, D.D. Swartz and **S.T. Andreadis** (2014). Exploring the Similarities and Differences between Mesenchymal Stem Cells from Different Anatomic Locations.
120. S. Son, P. Lei, M. Liang and **S.T. Andreadis** (2014). Reversing the effects of MSC senescence by highly efficient Nanog magnetofection.
121. R. Smith, M. Koobatian, D.D. Swartz and **S.T. Andreadis** (2014). VEGF mediated capture of endothelial cells under flow
122. S. Alimperti, S. Row and **S.T. Andreadis** (2014). Cadherin-11 is a key regulator of collagen synthesis and mechanical function of smooth muscle cells in vitro and in vivo.
123. P. Mistriotis and **S.T. Andreadis** (2014). Nanog promotes myogenic differentiation of MSC via serum response factor (SRF).

PATENT APPLICATIONS

1. Jun Tian and **Stelios T. Andreadis**

"Coordinate independent, consistent and high level dual-gene transgenesis from a single lentiviral vector"
A provisional Patent Application was filed with the U.S. Patent and Trademark Office on May, 2008 by the Research Foundation of the State University of New York, Serial No. R6277.

2. Dan Swartz and **Stelios T. Andreadis**
"Fibrin-based tissue engineered vasculature"
Filed with the U.S. Patent and Trademark Office on October 23, 2003 by the Research Foundation of the State University of New York, U.S. Patent Application Serial No. 10/692,381
3. D.J. Geer and **Stelios T. Andreadis**
"Conjugation and controlled delivery of growth factors through fibrin gels"
Filed with the U.S. Patent and Trademark Office on November 17, 2003 by the Research Foundation of the State University of New York as a Provisional Patent Application, Serial Number 60/520,697
4. Pedro Lei and **Stelios T. Andreadis**
"Tissue engineered insulin releasing skin grafts for treatment of diabetes"
Filed with the U.S. Patent and Trademark Office on October 15, 2004 by the Research Foundation of the State University of New York as a Provisional Patent Application, Serial Number 60/619,228
5. Jinyu Liu and **Stelios T. Andreadis**
"Isolation of functional smooth muscle cells using tissue specific promoters"
Filed with the U.S. Patent and Trademark Office on September 20, 2005 by the Research Foundation of the State University of New York as a Provisional Patent Application, Serial Number 60/718,813
6. Jun Wang, **Stelios T. Andreadis** and Triantafillos J. Mountziaris
"Fluorescence amplification of water-soluble ZnSe quantum dots and ZnSe/ZnS core/shell nanostructures: applications in clinical diagnostics"
Filed with the U.S. Patent and Trademark Office on May 4, 2006 by the Research Foundation of the State University of New York as a Provisional Patent Application Serial Number 60/757,261
7. Jinyu Liu and **Stelios T. Andreadis, "Isolation of functional smooth muscle cells and tissue vasculature containing the isolated cells".** Filed with the U.S. Patent and Trademark Office on September 19, 2006 by the Research Foundation of the State University of New York as a Patent Application; SUNY Reference No: R-6047; NP Reference No: 19226/2522.

INVITED RESEARCH PRESENTATIONS

1. **Stelios Andreadis**, "Stem cell engineering for vascular regeneration: molecular and systems biology approaches", *3rd Annual WNYSTEM Stem Cell Symposium: Stem Cells and Personalized Medicine,* Hauptman-Woodward Institute, Buffalo, NY, June 6, 2014.
2. **S.T. Andreadis**, "Molecular and Systems Biology Approaches in Stem Cell Engineering and Regenerative Medicine", *Department of Bioengineering,* Northeastern University, Boston, MA, May 15, 2014.
3. **S.T. Andreadis**, "Molecular and Systems Bioengineering Approaches to Monitor and Control Stem Cell Fate Decisions", *Center for Engineering in Medicine, Massachusetts General Hospital, Harvard Medical School*, Boston, MA, April 24, 2014.
4. **S.T. Andreadis**, "Controlling Stem Cell Fate Decisions via Cell-Cell Adhesion", *Northeast Bioengineering Conference (NEBEC)*, Northeastern University, Boston, MA, April 26, 2014.
5. **P. Mistriotis**, S.T. Andreadis, "Molecular and Bioengineering Strategies for Improving the Differentiation of Adult Mesenchymal Stem Cells", *Biomedical Research Foundation, Academy of Athens*, Athens, Greece, December 19, 2013.
6. **S.T. Andreadis**, "Molecular and Systems Biology Approaches in Stem Cell Engineering and Regenerative Medicine", *Department of Chemical and Biomolecular Engineering, Georgia Institute of Technology,* Atlanta, GA, October 16, 2013.
7. **S.T. Andreadis**, "Molecular and Systems Biology Approaches in Stem Cell Fate Decisions and Applications in Regenerative Medicine", **Keynote Speaker**, *Northeast Bioengineering Conference (NEBC)*, Syracuse University, Syracuse, NY, April 5-7, 2013.
8. J. Han, P. Mistriotis, **S.T. Andreadis**, "Stem Cell Senescence: Nanog Reverses the Effects of Organismal Aging On Proliferation and Myogenic Differentiation Potential of Mesenchymal Stem Cells", *Engineering Stem Cell Therapies Session, Annual Meeting of the American Institute of Chemical Engineers*, Pittsburgh, PA, October 31, 2012.
9. **S.T. Andreadis**, "Molecular and Systems Biology Approaches in Stem Cell based Tissue Engineering", **Keynote Presentation** *at the Network of Excellence for Functional Biomaterials, National University of Ireland*, Galway, Ireland, June 19, 2012.
10. **S.T. Andreadis**, "Lentiviral arrays for mesenchymal stem cell differentiation", *National Science Foundation CBET Grantee Conference*, Baltimore, MD, June 6-8, 2012.
11. **S.T. Andreadis**, "Stem cells for engineering human arteries: teaching old stem cells new tricks", *1st Annual WNYSTEM Stem Cell Symposium: Stem Cells in Health and Disease,* Hauptman-Woodward Institute, Buffalo, NY, June 2, 2012.
12. **S.T. Andreadis**, "Molecular and Systems Biology Approaches in Tissue Engineering", *Department of Biomedical Engineering, City College of New York,* New York, NY, May 9, 2012.
13. **S.T. Andreadis**, "Adult and induced pluripotent stem cells for engineering vascular tissues", *Department of Bioengineering, University of Pittsburgh, 2012 McGowan Institute for Regenerative Medicine Retreat,* Nemacolin Woodlands Resort, PA, March 6, 2012.
14. **S.T. Andreadis**, "Stem Cells and Lentivirus Microarrays for Tissue Engineering", *Department of Oral Biology, University at Buffalo (SUNY),* Buffalo, NY, Nov. 21, 2011.

15. **S.T. Andreadis**, "Stem Cells, Signaling Pathways and Live Cell Arrays for Tissue Regeneration", *School of Engineering, Brown University,* Providence, RI, Feb. 24, 2011.
16. **S.T. Andreadis**, "Hair follicle derived mesenchymal stem cells as a source of smooth muscle cells for engineering mechanically robust and vasoreactive vascular media", *New York State Stem Cell Science (NYSTEM) Awardees Meeting*, May 27, 2010.
17. **S.T. Andreadis**, "Stem Cells for Tissue Regeneration and Vascular Bioengineering", *Children's Hospital Boston, Harvard Medical School Longwood Campus, Boston*, MA, October 29, 2009.
18. **S.T. Andreadis**, "Stem Cells for Wound Healing and Vascular Tissue Regeneration", *School of Engineering and Applied Sciences, Harvard University,* Cambridge, MA, September 23, 2009.
19. **S.T. Andreadis**, "Hair Follicle Stem Cells for Vascular Tissue Engineering", *1st NYSTEM Meeting, Stem Cell Science in New York State: Emerging Opportunities,* Albany, NY, June 12, 2009.
20. **S.T. Andreadis**, "Stem Cells and Delivery Strategies for Wound Healing and Vascular Tissue Engineering", *Department of Biomedical Engineering, Johns Hopkins University,* Baltimore, MD, May 6, 2009.
21. **S.T. Andreadis**, "Stem Cells and Delivery Strategies for Wound Healing and Vascular Tissue Engineering", *Department of Medicine, Division of Dermatology, Vanderbilt University,* Nashville, TN, April 10, 2009.
22. **S.T. Andreadis**, "Multipotent human hair follicle stem cells for vascular tissue engineering", *Vascular Matrix Biology and Bioengineering Conference,* Whistler, British Columbia, Canada, March 16-19, 2009.
23. **S.T. Andreadis**, "Signaling pathways, experimental models and delivery strategies for tissue engineering", *Department of Biomedical Engineering, Case Western Reserve University,* Cleveland, OH, September 4, 2008.
24. **S.T. Andreadis**, "Stem cells, signaling pathways and delivery strategies in tissue engineering", *Department of Chemical and Biological Engineering, Northwestern University,* Evanston, IL, October 25, 2007.
25. **S.T. Andreadis**, "Signaling pathways, experimental models and delivery strategies for tissue regeneration", *2nd Annual WPI/UMass Symposium on Tissue Regeneration,* Worcester, MA, June 4-5, 2007.
26. **S.T. Andreadis**, "Stem Cells for Wound Healing and Vascular Regeneration", *Frontiers in Biological Systems Symposium, Center of Excellence in Bioinformatics & Life Sciences,* Buffalo, NY, June 13-15, 2006.
27. **S.T. Andreadis**, "Stem Cells and Gene/Protein Delivery for Tissue Engineering", *Department of Biomedical Engineering, Georgia Institute of Technology,* Atlanta, GA, June 10-11, 2006.
28. **S.T. Andreadis**, "Tissue Engineering for Wound Healing and Vascular Replacement Therapy", *Center of Excellence in Bioinformatics & Life Sciences,* Buffalo, NY, May 26, 2006.
29. **S.T. Andreadis**, "Stem Cells and Gene/Protein Delivery for Tissue Engineering", *Department of Biomedical Engineering, Columbia University,* New York, NY, March 21, 2006.

30. **S.T. Andreadis**, "Stem Cells and Gene Therapeutics for Tissue Regeneration", *Department of Chemical and Biomolecular Engineering, Johns Hopkins University,* Baltimore, MD, February 16, 2006.
31. **S.T. Andreadis**, "Tissue Engineering: Current Advances and Future Prospects", *Department of Chemical and Department of Biomedical Engineering, University of Rochester,* Rochester, NY, November 16, 2005.
32. **S.T. Andreadis**, "Gene Therapy in Epithelial and Cardiovascular Tissue Engineering", *Department of Chemical Engineering, University of Massachusetts,* Amherst, MA, September 15, 2005.
33. **S.T. Andreadis**, "Gene and Protein Delivery for Wound Healing and Tissue Engineering", *Department of Biomedical Engineering, Tufts University,* Boston, MA, June 28, 2005.
34. **S.T. Andreadis**, "Gene and Protein Delivery for Skin and Vascular Tissue Engineering", *Department of Biomedical Engineering, University of California at Davis,* Davis, CA, June 22, 2005.
35. **S.T. Andreadis**, "Gene and Protein Delivery for Skin and Vascular Tissue Engineering", *Department of Biomedical Engineering, Rutgers, The State University of New Jersey,* Piscataway, NJ, June 20, 2005.
36. B.G. Bajaj, R. Singh and **S.T. Andreadis,** "Integrin Signaling in Retroviral Gene Transfer to Epithelial Stem Cells", *2nd International Conference in Tissue Engineering, Crete, Greece,* May 22-24, 2005
37. D.J. Geer, D.D. Swartz and **S.T. Andreadis,** "Cell-controlled Release of Keratinocyte Growth Factor Accelerates Wound Healing *in vitro* and *in vivo*", *2nd International Conference in Tissue Engineering, Crete, Greece,* May 22-24, 2005
38. L. Yao, D.D. Swartz, J.A. Russell and **S.T. Andreadis,** "Tissue Engineering of Implantable Small-Diameter Blood Vessels", *2nd International Conference in Tissue Engineering, Crete, Greece,* May 22-24, 2005
39. **S.T. Andreadis**, "Gene Therapy in Skin and Vascular Tissue Engineering", *Department of Biomedical Engineering, Ohio State University,* Columbus, OH, April, 2005.
40. **S.T. Andreadis**, "Gene Therapy and Growth Factor Delivery for Wound Healing and Vascular Tissue Engineering", *Department of Pharmaceutics, University at Buffalo,* Amherst, NY, March 31, 2005.
41. **S.T. Andreadis,** "Insulin Delivery through Genetically Modified Living Skin Equivalents for Treatment of Diabetes", *ET 2005: Engineering Tissues Conference,* Sea Pines Plantation, Hilton Head, SC, March 9-13, 2005.
42. **S.T. Andreadis**, "Gene Therapy in Skin and Vascular Tissue Engineering", *Department of Chemical and Biological Engineering, Tufts University,* Boston, MA, Feb 7, 2005.
43. **S.T. Andreadis**, "Gene Therapy in Skin and Vascular Tissue Engineering", *Department of Chemical Engineering, Carnegie Mellon University,* Pittsburgh, PA, Jan 13, 2005.
44. **S.T. Andreadis**, "Gene Therapy and Genomics in Skin and Vascular Tissue Engineering", *Department of Chemical Engineering, Princeton University,* Princeton, NJ, Dec 1, 2004.
45. **S.T. Andreadis**, "Retroviral Gene Transfer: Mechanisms and Applications in Tissue Engineering", *Department of Molecular and Cellular Biology, Roswell Park Cancer Institute,* Buffalo, NY, May 6, 2004.

46. **S.T. Andreadis**, "Retrovirus gene transfer to epidermal stem cells: implications for tissue engineering", *Stem Cell & Cell Transplantation Group, Hearing Research Lab, School of Medicine, State University of New York at Buffalo*, Buffalo, NY, Oct 28, 2003.
47. **S.T. Andreadis**, *Lindsay Lecturer,* "Gene Therapy and Tissue Engineering of Skin and Blood Vessels", *Dept of Chemical Engineering, Texas A&M University,* College Station, TX, Sep 23, 2003.
48. **S.T. Andreadis**, "Gene Therapy and Genomics in Tissue Engineering", *Dept of Surgery, Division of Plastic Surgery, University of Massachusetts Medical School,* Worcester, MA, June, 25, 2003.
49. **S.T. Andreadis**, "Gene Therapy and Genomics in Tissue Engineering", *Dept of Chemical Engineering and Dept of Biomedical Engineering,* Worcester Polytechnic Institute, Worcester, MA, April, 17, 2003.
50. **S.T. Andreadis**, "Retrovirus gene transfer to epidermal stem cells: the role of integrins and extracellular matrix", *American Chemical Society 225th Meeting*, New Orleans, LA, March 23-27, 2003.
51. **S.T. Andreadis,** "Gene therapy and genomics in tissue engineering", *Center for Excellence in Bioinformatics,* University at Buffalo, Buffalo, NY, December 12, 2002
52. **S.T. Andreadis,** "The role of extracellular matrix in retrovirus gene transfer to epidermal stem cells", *Dept of Chemical Engineering, Tufts University*, Medford, MA, November 25, 2002.
53. **S.T. Andreadis,** "Fibrin-mediated delivery of KGF in 2D and 3D models of wound regeneration", *Annual Fall Meeting of the Biomedical Engineering Society*, Houston, TX, October 23, 2002.
54. **S. Andreadis**, "The role of extracellular matrix in retroviral gene transfer: applications in tissue engineering and wound healing", presented at *The Department of Pediatrics, Division of Neonatology, Children's Hospital of Buffalo*, *University at Buffalo, SUNY,* September 12, 2002.
55. **S. Andreadis**, "The construction of artificial organs in the laboratory", will be presented at *The Western New York Science and Technology Forum, University at Buffalo, SUNY,* December 5, 2001.
56. **S. Andreadis**, "Retroviral gene transfer and tissue engineering of genetically modified skin for wound healing", presented at *The Department of Bioengineering, University of Pittsburgh*, April 6, 2001.
57. **S. Andreadis**, "Gene transfer using recombinant retroviruses: kinetic studies and applications in tissue engineering of the skin", presented at *The Department of Biological Sciences, School of Arts and Sciences, State University of New York at Buffalo*, April 6, 2000.
58. **S. Andreadis**, "Gene therapy using recombinant retroviruses: applications in tissue engineering", presented at *The Department of Physiology & Biophysics, Medical School, State University of New York at Buffalo*, November 22, 1999.
59. **S. Andreadis**, "Gene therapy using recombinant retroviruses: applications in tissue engineering", presented at *The Department of Pathology, Medical School, State University of New York at Buffalo*, November 16, 1999.
60. **S. Andreadis**, "Gene therapy in tissue engineering of the skin", *Department of Neurology, Roswell Park Cancer Institute*, Buffalo, NY, November 15, 1999.

61. **S. Andreadis**, "Kinetics of retroviral transduction and application in tissue engineering of the skin", presented at *Life Technologies – Gibco BRL, Grand Island, NY,* March 25, 1999.
62. **S. Andreadis**, "Kinetics of retroviral transduction and application in tissue engineering of the skin", presented at *The Department of Pharmacy, State University of New York at Buffalo*, February 25, 1999.
63. **S. Andreadis**, "Kinetics of retroviral transduction and application in tissue engineering of the skin", presented at *The Department of Neurology, Roswell Park Cancer Institute*, November, 1998.
64. **S. Andreadis**, "Effects of KGF on *in vitro* reconstituted genetically modified human epidermis", *The Department of Physiology, Medical School, State University of New York at Buffalo*, May 4, 1998.
65. **S. Andreadis** & J.R. Morgan, "Genetically modified *in vitro* skin equivalents". *LifeCell Corp,* The Woodlands, Texas, April 14-17, 1998.
66. **S. Andreadis**, "Dynamics of retroviral transduction: the importance of intracellular stability of retroviral vectors", *Chemical, Bio and Materials Engineering Department Seminar, Arizona State University, Phoenix, AZ*, April, 1997.
67. **S. Andreadis**, "Dynamics of retroviral transduction: the importance of intracellular stability of retroviral vectors", *Harvard-MIT Division of Science and Technology Biomedical Engineering Seminars,* Cambridge, MA, September 26, 1996.
68. **S. Andreadis**, "Dynamics of retroviral-mediated gene transfer". *Center for Engineering in Medicine, Shriners Hospital for Children and Massachusetts General Hospital, Harvard Medical School*, Cambridge, MA, March, 1996.

PRESENTATIONS AT SCIENTIFIC MEETINGS

1. R. Padmashali, M. Liang, P. Mistriotis and **S.T. Andreadis,** "Lentiviral Arrays for High-Throughput, Live Monitoring Gene and Pathway Activation during Stem Cell Differentiation", Microtechnologies & High Throughput Screening, *4th International Conference on Stem Cell Engineering,* (co-sponsored by SBE and ISSCR), Coronado, CA, March 19, 2014.
2. P. Mistriotis and **S.T. Andreadis,** "Nanog Reverses the Effects of Senescence on Proliferation and Myogenic Differentiation of Human Mesenchymal Stem Cells", *4th International Conference on Stem Cell Engineering,* (co-sponsored by SBE and ISSCR), Coronado, CA, March 16, 2014 (poster and rapid fire presentation).
3. S. Alimperti, H. You, T.A. George, S. Agarwal and S.T. **Andreadis,** "Directing Stem Cell Differentiation By Engineering Cell-Cell Adhesion Pathways", *Annual Meeting of the American Institute of Chemical Engineers (AIChE)*, San Francisco, CA, November 7, 2013.
4. S. Alimperti, H. You, T.A. George, S. Agarwal and S.T. **Andreadis,** "OB-Cadherin Regulates Mesenchymal Stem Cell Differentiation Into Smooth Muscle Cells and Development of Contractile Function in Vivo", *Annual Meeting of the American Institute of Chemical Engineers (AIChE)*, San Francisco, CA, November 7, 2013.
5. S.Y. Son, M-S. Liang, P. Lei and **S.T. Andreadis**, "Nanog Transient Overexpression With Optimized Magnitofection to Reverse the Effects of Organismal Aging On

Mesenchymal Stem Cells", *Annual Meeting of the American Institute of Chemical Engineers (AIChE)*, San Francisco, CA, November 6, 2013.

6. S. Row, H-F. Peng, E.M. Schlaich, **S.T. Andreadis,** D.D. Swartz, "Maturation of Implantable Vascular Grafts in An Ovine Model Using Small Intestinal Sub-Mucosa: Do We Need Pre-Seeding of Smooth Muscle Cells?", *Annual Meeting of the American Institute of Chemical Engineers (AIChE)*, San Francisco, CA, November 6, 2013.
7. P. Mistriotis, M. Liang and **S.T. Andreadis**, "Ectopic Expression of Nanog Up-Regulates SRF and Reverses the Loss of Myogenic Differentiation Capacity of human Mesenchymal Stem Cells Due to Senescence", *Annual Meeting of the American Institute of Chemical Engineers (AIChE)*, San Francisco, CA, November 6, 2013.
8. M.-S. Liang, S.Y. Son, S. Sinha and **S.T. Andreadis** "Engineering Nanog Protein for Effective Protein Transduction: A Possible Alternative to Reverse the Effects of Organismal Aging On Mesenchymal Stem Cells", *Annual Meeting of the American Institute of Chemical Engineers (AIChE)*, San Francisco, CA, November 5, 2013.
9. M.T. Koobatian, M-S. Liang, D.D. Swartz and **S.T. Andreadis,** "Comparing the Effects of Mechanical Stimulation On Bone Marrow and Hair-Follicle Mesenchymal Stem Cells: Vascular Tissue Engineering", *Annual Meeting of the American Institute of Chemical Engineers (AIChE)*, San Francisco, CA, November 4, 2013.
10. P. Mistriotis, M. Liang and **S.T. Andreadis**, "Nanog Enhances the Proliferation and Reverses the Effect of Senescence on Myogenic Differentiation of human Mesenchymal Stem Cells", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Seattle, WA, September 26, 2013.
11. M.-S. Liang, M. Koobatian, D. D. Swartz and **S.T. Andreadis**, "Synergistically Providing Cyclic Mechanical Stimulation and Local TGF-β1 Delivery Enhances Mechanical Properties and Uniformity of the Fibrin Vascular Construct", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Seattle, WA, Sep 25, 2013.
12. S. Row, H. Peng, E.M. Schlaich, C. Koenigsknecht, D.D Swartz and **S.T. Andreadis**, "Time Course of Healing and Maturation of Implantable Vascular Grafts in the Arterial System of an Ovine Model: Do We Need Cells in the Vascular Wall?", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Seattle, WA, September 26, 2013.
13. S. Alimperti, S. Row, S. Agrawal and **S.T. Andreadis**, "Directing mesenchymal stem cell fate decisions by engineering cell-cell adhesion pathways", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Seattle, September 25, 2013.
14. S. Alimperti, H. You, T. George, S. Agrawal and **S.T. Andreadis,** "OB-Cadherin Regulates Mesenchymal Stem Cell Differentiation into Smooth Muscle Cells and Development of Contractile Function in Vivo", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Seattle, September 25, 2013.
15. S. Son, M.-S. Liang, P. Lei and **S.T. Andreadis**, "Non-viral DNA Delivery Approach for High-Efficiency Nanog Transient Overexpression in Mesenchymal Stem Cells to Reverse the Effects of Organismal Aging", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Seattle, WA, Sep 25, 2013.
16. K. Maxwell, M-S. Liang, D. Swartz, and **S. Andreadis**, "Differential response of mesenchymal stem cells from different anatomic locations to long-term culture and mechanical stimulation", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Seattle, WA, September 27, 2013.

17. S. Alimperti and **S.T. Andreadis**, "Cell-Cell Contact Regulates Myogenic Fate Differentiation of Mesenchymal Stem Cell Through OB-Cadherin", *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, October 29, 2012.
18. H. You and **S.T. Andreadis**, "JNK Regulates Rigidity-Dependent Adherence Junction Formation of Epithelia in Vivo and in Vitro", *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, October 29, 2012.
19. J. Moharil, P. Mistriotis, H. You, P. Lei, J. Tian and **S.T. Andreadis**, "High Throughput Monitoring of Pathway Activation Upon Ectopic Expression of Nanog in Human Mesenchymal Stem Cells Using Lentiviral Arrays, *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, October 30, 2012.
20. R. Padmashali, M. Liang, P. Mistriotis and **S.T. Andreadis**, "Live-Cell Screens for Studying Regulatory Networks in Human Mesenchymal Stem Cell Differentiation", *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, October 31, 2012.
21. **S. Row**, E.M. Schlaich, H.F. Peng, D.D. Swartz and **S.T. Andreadis**, "Implantation of Vascular Grafts Made From Small Intestinal Sub-Mucosa and Hair Follicle Stem Cells in an Ovine Animal Model", *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, October 31, 2012.
22. V.K. Bajpai and **S.T. Andreadis**, "Human Induced Pluripotent Stem Cells Differentiate Into Contractile Vascular Smooth Muscle Fate Via Mesenchymal Stem Cell Intermediates: Implication for Cardiovascular Regeneration", *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, October 31, 2012.
23. J. Han, P. Mistriotis and **S.T. Andreadis**, "Stem Cell Senescence: Nanog Reverses the Effects of Organismal Aging On Proliferation and Myogenic Differentiation Potential of Mesenchymal Stem Cells", *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, October 31, 2012.
24. R. Padmashali, H. You and **S.T. Andreadis,** "Adherens Junctions Formation Prevents Lentiviral Entry", *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, November 1, 2012.
25. M. Liang, M.T. Koobatian, D.D. Swartz and **S.T. Andreadis**, "Development of Biomimetic Environments with Appropriate Chemical and Mechanical Cues for Cells in Bioengineered Vascular Grafts", *Annual Meeting of the American Institute of Chemical Engineers,* Pittsburgh, PA, November 1, 2012.
26. S. Row, E. Schlaich, H.F. Peng, D.D. Swartz and **S.T. Andreadis**, "Implantation of Vascular Grafts from Hair Follicle Stem Cells in the Arterial System of an Ovine Animal Model", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Atlanta, GA, October 27, 2012.
27. J. Moharil, P. Mistriotis, H. You, P. Lei, J. Tian, and **S.T. Andreadis**, "Lentiviral Arrays for High Throughput Monitoring of Pathway Activation in Nanog-Expressing Human Mesenchymal Stem Cells", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Atlanta, GA, October 26, 2012.
28. V.K. Bajpai and **S.T. Andreadis**, "Human Pluripotent Stem Cell Differentiate into Smooth Muscle Via Mesenchymal Stem Cell Intermediates", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Atlanta, GA, October 26, 2012.

29. H. You, A. Ranganathan and **S.T. Andreadis**, "JNK Regulates Rigidity-dependent Adherence Junction Formation of Epithelia", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Atlanta, GA, October 25, 2012.
30. S. Alimperti and **S.T. Andreadis**, "Cell-Cell Contact Controls Myogenic Differentiation of Mesenchymal Stem Cells Through OB-cadherin", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Atlanta, GA, October 25, 2012.
31. R. Padmashali, M. Liang, P. Mistriotis and **S.T. Andreadis**, "Using Live Cell Arrays to Develop Gene Regulation Fingerprint for Mesenchymal Stem Cell Differentiation Research", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Atlanta, GA, October 25, 2012.
32. P. Mistriotis, M. Liang, J. Han, and **S.T. Andreadis**, "Nanog Reverses the Effect of Senescence on Myogenic Differentiation of Human Mesenchymal Stem Cells", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Atlanta, GA, October 25, 2012.
33. P. Hayden, C. E. Mankus, P. Lei, G.R. Jackson, J. Bolmarcich, A. Armento, **S. Andreadis**, M. Klausner, "Organotypic *in vitro* human epithelial models with engineered gene knockdown or mechanistic reporter functions", *Society of Investigative Dermatology Annual Meeting,* Raleigh, NC, May 9-12, 2012.
34. Manzella K., Lei P., **Andreadis, S.T.** and Baker, O.J., "Combination of Fibrin Hydrogels and Matrigel Enhance Par-C10 Acinar Differentiation", *American Association for Dental Research (AADR) Meeting,* Tampa, Florida, March 21-24, 2012.
35. Liang, M., and **Andreadis, S.T.,** "Covalent Immobilization of Transforming Growth Factor- β1 (TGF- β1) for Enhanced Vascular Functionality In Vitro Perhaps Through Prolonged Activation of TGF- β1 Pathway", *Annual Meeting of the American Institute of Chemical Engineers*, Minneapolis, MN, October 20, 2011
36. Alimperti, S., and **S.T. Andreadis,** "Regulation of Mesenchymal Stem Cell Myogenic Differentiation by Cell-Cell Adhesion: The Role of Cadherins In Differentiation", *Annual Meeting of the American Institute of Chemical Engineers*, Minneapolis, MN, October 19, 2011.
37. Lei, P., Moharil, J., Tian, J., and **S.T. Andreadis,** "Temporal Gene Expression Profiling In Live Cell Array: Monitoring Mesenchymal Stem Cell Differentiation", *Annual Meeting of the American Institute of Chemical Engineers, Minneapolis,* MN, October 19, 2011.
38. Bajpai, V.K., and **S.T. Andreadis,** "Functional Smooth Muscle Cells Derived from Induced Pluripotent Stem Cells for Cardiovascular Tissue Engineering Applications", *Annual Meeting of the American Institute of Chemical Engineers*, Minneapolis, MN, October 18, 2011.
39. Han J., **S.T. Andreadis,** "Nanog Reverses the Effects of Donor Aging on Proliferation and Myogenic Differentiation of Mesenchymal Stem Cells", *Annual Meeting of the American Institute of Chemical Engineers*, Minneapolis, MN, October 18, 2011.
40. You H., Ranganathan A, and **S.T. Andreadis**, "JNK Regulates Rigidity-dependent Cross Talk between Focal Adhesion and Adherent Junction", *Annual Meeting of the American Institute of Chemical Engineers*, Minneapolis, MN, October 17, 2011.
41. Alimperti, S., and **S.T. Andreadis,** "Quantitative Assessment of Cell Signaling Pathways Affecting Stem Cell Differentiation Using Lentiviral Arrays", *Annual Meeting of the American Institute of Chemical Engineers*, Minneapolis, MN, October 16, 2011.

42. Alimperti, S., Lei, P., Tian J., and **S.T. Andreadis,** "Quantitative Assessment of Cell Signaling Pathways Affecting Stem Cell Differentiation Using Lentiviral Arrays", *Biomedical Engineering Society,* Hartford, CT, October 15, 2011.
43. Moharil, J., Lei, P., Tian, J., and **S.T. Andreadis,** "Live Cell Array for Real Time Acquisition of Gene Expression Profiles during Myogenic Differentiation in Mesenchymal Stem Cells", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Hartford, CT, October 15, 2011 (poster).
44. Bajpai, V.K., and **S.T. Andreadis,** "Induced Pluripotent Stem Cell Derived Functional Smooth Muscle Cells for Vascular Tissue Engineering", *Annual Meeting of the Biomedical Engineering Society*, Hartford, CT, October 15, 2011.
45. Han J., and **S.T. Andreadis,** "Neonatal and Adult Mesenchymal Stem Cells for Vascular Tissue Engineering: Effects of Nanog Overexpression on Proliferation and Myogenic Differentiation", *Annual Meeting of the Biomedical Engineering Society (BMES)*, Hartford, CT, October 15, 2011.
46. Liang, M., and Andreadis, S.T., "Genetically engineered TGF-β1 that binds to fibrin and enhances the function of vascular grafts with MSC derived smooth muscle progenitor cells", *Annual Meeting of Biomedical Engineering Society (BMES)*, Hartford, CT, October 13, 2011
47. Peng, H., Schlaich, E.M., Row, S., and **S.T. Andreadis,** "A Novel Ovine ex-vivo Arteriovenous Shunt Model for Testing Vascular Implantability", *Annual Meeting of the Biomedical Engineering Society (BMES),* Hartfort, CT, October 13, 2011 (poster).
48. You, H., Ranganathan, A., and **S.T. Andreadis,** "JNK Phosphorylation Regulates Rigidity-dependent Cross Talk between Focal Adhesion and Adherent Junction", *Annual Meeting of the Biomedical Engineering Society (BMES),* Hartfort, CT, October 13, 2011.
49. H. Peng, E.M. Schlaich, S. Row, D.D. Swartz and S.T. Andreadis, "A novel arterio-venous shunt model for testing tissue engineered vascular grafts from hair follicle stem cells", *NHLBI Symposium on Cardiovascular Regenerative Medicine*, Bethesda, MD, October 4-5, 2011 (poster).
50. H. Peng, E. Schlaich, D. D. Swartz, and **S.T. Andreadis, "**Engineering a functional vascular graft from hair follicle derived smooth muscle cells and small intestinal submucosa", *Tissue Engineering and Regenerative Medicine International Society (TERMIS) Annual Conference and Exposition*, Orlando, FL, December 7, 2010.
51. J. Han, S. Row, D. D. Swartz, and **S.T. Andreadis,** "Effects of Nanog or Oct4 overexpression on proliferation and myogenic differentiation of mesenchymal stem cells for vascular tissue engineering", *Tissue Engineering and Regenerative Medicine International Society (TERMIS) Annual Conference and Exposition*, Orlando, FL, December 6, 2010.
52. P. Lei, J. Tian, J. Moharil, P. Xu, C.P. Schaffer and **S.T. Andreadis**, "Live Cell Array for High-Throughput Study of Real-Time Gene Expression Dynamics: Towards Understanding of Mesenchymal Stem Cell Differentiation", *Annual Meeting of the American Institute of Chemical Engineers*, Salt Lake City, UT, November 10, 2010.
53. R. Padmashali, and **S.T. Andreadis**, "Cell-Controlled and Spatially Localized Gene Delivery with Fibrin-Conjugated VSV-Pseudotyped Lentivirus: Implications for Lentiviral Microarrays", *Annual Meeting of the American Institute of Chemical Engineers*, Salt Lake City, UT, November 10, 2010.

54. M. Liang and **S.T. Andreadis,** "Covalent Conjugation of Transforming Growth Factor-beta1 to Fibrin Hydrogel for Tissue Engineering", *Annual Meeting of the American Institute of Chemical Engineers*, Salt Lake City, UT, November 9, 2010.
55. J. Han, S. Row, D. D. Swartz, and **S.T. Andreadis,** "Mesenchymal Stem Cells for Vascular Tissue Engineering: Effects of Nanog and Oct4 Overexpression On Proliferation and Myogenic Differentiation", *Annual Meeting of the American Institute of Chemical Engineers*, Salt Lake City, UT, November 8, 2010.
56. H. Peng, E. Schlaich, D. D. Swartz, and **S.T. Andreadis, "**Engineering Functional Vascular Media From Hair Follicle Derived Mesenchymal Stem Cells and Small Intestinal Submucosa", *Annual Meeting of the American Institute of Chemical Engineers*, Salt Lake City, UT, November 8, 2010.
57. M. Lee, R. Padmashali, and **S.T. Andreadis**, "JNK-Mediated Regulation of Cell-Cell Adhesion", *Annual Meeting of the American Institute of Chemical Engineers*, Salt Lake City, UT, November 8, 2010.
58. J. Han, S. Row, D. D. Swartz, and **S.T. Andreadis,** "Effects of Nanog and Oct4 Overexpression on Mesenchymal Stem Cells for Vascular Tissue Engineering", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Austin, TX, October 9, 2010.
59. M. Liang and **S.T. Andreadis,** "Covalent Conjugation of Transforming Growth Factor-beta1 to Fibrin Hydrogel for Tissue Engineering", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Austin, TX, October 9, 2010.
60. H. Peng, E. Schlaich, D. D. Swartz, and **S.T. Andreadis,** "Hair Follicle Derived Mesenchymal Stem Cells for Engineering Arterial Substitute", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Austin, TX, October 9, 2010.
61. M. Lee, and **S.T. Andreadis**, "JNK-mediated Regulation of Adherens Junctions", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Austin, TX, October 8, 2010.
62. P. Lei, J. Tian, J. Moharil, P. Xu, C. P. Schaffer, and **S. T. Andreadis**, **"**Real-time live cell array for monitoring gene expression in mesenchymal stem cell differentiation**",** *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Austin, TX, October 7, 2010.
63. R. Padmashali, and **S.T. Andreadis**, "Fibrin-conjugated VSV-G pseudotyped lentiviruses for localized gene delivery and live cell microarray applications", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Austin, TX, October 7, 2010.
64. **S.T.Andreadis**, "Hair follicle mesenchymal stem cells as a source of smooth musc le cells for engineering mechanically robust and vasoreactive vascular media", *New York State Stem Cell Science (NYSTEM) Awardees Meeting*, May 27, 2010
65. J. Tian, P. Lei, R. Padmashali, X. Peng, **S.T. Andreadis**, "Monitoring real-time gene expression during differentiation of mesenchymal stem cells using high throughput live cell arrays", *New York State Stem Cell Science (NYSTEM) Awardees Meeting*, May 26, 2010
66. J. Tian, S. Allimperti, P. Lei, **S.T. Andreadis,** "Lentiviral Microarrays for High-Throughput and Real-Time Monitoring of Gene Expression Dynamics", *13th Annual Meeting of the American Society of Gene Therapy (ASGT)*, Washington, DC, May 21, 2010.

67. M.H. Lee, R. Padmashali, **S.T. Andreadis**, "The role of JNK in lentivirus gene transfer", *13th Annual Meeting of the American Society of Gene Therapy (ASGT)*, Washington, DC, May 20, 2010.
68. R. Padmashali, P. Lei, **S.T. Andreadis**, "Fibrin-Conjugated Pseudotyped Lentivirus for Cell-Controlled and Spatially Localized Gene Delivery on Microarrayed Surfaces", *13th Annual Meeting of the American Society of Gene Therapy (ASGT)*, Washington, DC, May 21, 2010.
69. J. Tian, S. Alimperti, **S.T. Andreadis**, "Microarray of Lentiviral Reporter Vectors for High-throughput and Real-time Dynamic Gene Expression Profiling", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Pittsburgh, PA, October 10, 2009.
70. R. Padmashali1, **S.T. Andreadis**, "Fibrin-Conjugated Pseudotyped Lentivirus for Cell-Controlled and Spatially-Localized Gene Delivery: Implications for Lentiviral Microarrays", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Pittsburgh, PA, October 9, 2009.
71. J. Han, V. Bajpai, D.D. Swartz and **S.T. Andreadis**, "Mesenchymal Stem Cells for Vascular Tissue Engineering: Effects of Nanog and Sox2 Overexpression on Self-Renewal and Myogenic Differentiation", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Pittsburgh, PA, October 9, 2009.
72. M.H. Lee and **S.T. Andreadis**, "Alpha-catenin is necessary for JNK-mediated regulation of adherens junctions", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Pittsburgh, PA, October 8, 2009.
73. H.F. Peng, J.Y. Liu, J. Han, D.D. Swartz and **S.T. Andreadis**, "Engineering vascular constructs from hair-follicle stem cells and small intestinal submucosa", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Pittsburgh, PA, October 8, 2009.
74. **S.T. Andreadis**, "Hair Follicle Stem Cells for Vascular Tissue Engineering", *1st NYSTEM Meeting, Stem Cell Science in New York State: Emerging Opportunities,* Albany, NY, June 12, 2009.
75. **S.T. Andreadis**, "Multipotent human hair follicle stem cells for vascular tissue engineering", *Vascular Matrix Biology and Bioengineering Conference,* Whistler, British Columbia, Canada, March 16-19, 2009.
76. J. Tian, **S.T. Andreadis,** "Independent and high level dual-gene expression from double promoter lentivirus for high-throughput and real-time dynamic gene expression profiling", *Tissue Engineering and Regenerative Medicine International Society (TERMIS) Meeting*, San Diego, CA, December 10, 2008.
77. J.Y. Liu, H.F. Peng, J. Tian, S. Gopinath, **S.T. Andreadis,** "Hair follicle is a novel source of mesenchymal stem cells for tissue engineering", *Tissue Engineering and Regenerative Medicine International Society (TERMIS) Meeting*, San Diego, CA, December 9, 2008.
78. J. Han, J.Y. Liu, D.D. Swartz, **S.T. Andreadis**, "Mesenchymal Stem Cells for Vascular Tissue Engineering: Effects of Organismal Aging on Gene Expression Profile and Functionality of Vascular Grafts", *Tissue Engineering and Regenerative Medicine International Society (TERMIS) Meeting*, San Diego, CA, December 8, 2008.
79. J. Tian, **S.T. Andreadis,** "Engineering Vectors for Dual Gene Expression from Independent Promoters for High Throughput Studies", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 21, 2008.

80. S. Raut, P. Lei, R. Padmashali, **S.T. Andreadis,** "Use of Fibrin Hydrogels for Localized and Cell-Controlled Lentiviral Gene Transfer", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 20, 2008.
81. R. Singh, **S.T. Andreadis,** "EGFR Regulates Cell-Cell Adhesion and E-Cadherin Translocation through PKC-Delta", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 20, 2008.
82. L.M. Lugo, **S.T. Andreadis,** "Acellular Dermis Promotes Neovascularization and Epidermal Regeneration: Implications for Wound Healing", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 19, 2008.
83. J. Wang, T. Heckler, B.C. Mei, P. Lei, **S.T. Andreadis**, T.J. Mountziaris, "DNA Hybridization Detection Using Zinc Selenide Nanocrystals as Active Sensors", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 19, 2008.
84. H.F. Peng, J.Y. Liu, J. Han, D.D. Swartz, **S.T. Andreadis,** "Fibrin-Infiltrated Small Intestine Submucosa as a Scaffold for Tissue Engineered Vessels Using Hair-Follicle Derived Smooth Muscle Progenitor Cells", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 19, 2008.
85. M.H. Lee, **S.T. Andreadis,** "JNK Regulates Adherens Junctions by Phosphorylating Beta-Catenin", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 19, 2008.
86. M.H. Lee, R. Padmashali, **S.T. Andreadis,** "JNK Signaling Is Necessary for Lentivirus Gene Transfer", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 19, 2008.
87. P. Lei, R. Padmashali, **S.T. Andreadis,** "Target Cell Controlled and Spatially Arranged Gene Delivery from Fibrin Hydrogels", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 17, 2008.
88. J. Han, J.Y. Liu, D.D. Swartz, **S.T. Andreadis**, "Effect of Organismal Aging on Bone Marrow Derived Smooth Muscle Progenitor Cells", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 17, 2008.
89. J.Y. Liu, H.F. Peng, J. Tian, S. Gopinath, **S.T. Andreadis,** "Direct Differentiation of Human Hair Follicle Stem Cells into Vascular Smooth Muscle Lineage for Cardiovascular Therapy", *Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, PA, November 17, 2008.
90. J. Han, J.Y. Liu, D.D. Swartz, **S.T. Andreadis**, "Bone Marrow Derived Smooth Muscle Progenitor Cells: Effects of Organismal Aging on Tissue Engineered Vascular Constructs", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.
91. J. Tian, **S.T. Andreadis**, "Consistent and High Level Dual-Gene Expression from a Single Lentiviral Vector", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.
92. H.F. Peng, J.Y. Liu, J. Han, D.D. Swartz, **S.T. Andreadis**, "Engineering Vascular Constructs from Hair-Follicle Stem Cells and Fibrin-Infiltrated Small Intestinal Submucosa", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.

93. S. Raut, R. Padmashali, P. Lei, **S.T. Andreadis**, "Enhanced, Localized and Cell-Controlled Lentivirus Gene Transfer from Fibrin Hydrogels", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.
94. M.H. Lee, **S.T. Andreadis**, "JNK Phosphorylates Beta-Catenin and Regulates Adherens Junctions", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.
95. R. Padmashali, P. Lei, **S.T. Andreadis**, "Localized and Cell-Controlled Gene Delivery from Fibrin Hydrogels", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.
96. J.Y. Liu, H.F. Peng, S. Goppinath, **S.T. Andreadis**, "Multipotent Human Hair Follicle Stem Cells for Cardiovascular Tissue Engineering", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.
97. R. Singh, **S.T. Andreadis**, "PKC-Delta Binds to E-Cadherin and Mediates EGF-Induced Cell Scattering", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.
98. M.H. Lee, **S.T. Andreadis**, "The Role of JNK Signaling in Lentivirus Gene Transfer", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, St. Louis, MO, October 1-4, 2008.
99. J. Tian, P. Lei, S.G. Laychock and **S.T. Andreadis**, "Regulated Secretion of Insulin from Genetically Modified Epidermal Stem Cells for Treatment of Diabetes", *11th Annual Meeting of the American Society of Gene Therapy (ASGT)*, Boston, MA, May 28-June 1, 2008.
100. Liana M. Lugo-Recart and **S.T. Andreadis**, "Fibrin Delivery of Keratinocytes Along with Keratinocyte Growth Factor onto Modified Human Dermis", *3rd Annual Academic Surgical Congress*, Huntington Beach, CA, February 15, 2008.
101. J. Wang, G. Qiu, B.C. Mei, T. Heckler, **S.T. Andreadis**, T.J. Mountziaris, "Zinc Selenide Quantum Dots as Fluorescent Labels for DNA Detection Applications", *Annual Meeting of the American Institute of Chemical Engineers*, Salt Lake City, UT, November 5, 2007.
102. J. Tian, P. Lei, S.G. Laychock and **S.T. Andreadis**, "Regulated secretion of insulin from genetically modified skin cells for treatment of diabetes", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Los Angeles, CA, September 26-29, 2007.
103. J.Y. Liu, H.F. Peng and **S.T. Andreadis**, "Follicular stem cells as a source of functional smooth muscle cells for vascular tissue engineering", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Los Angeles, CA, September 26-29, 2007.
104. M.H. Lee and **S.T. Andreadis**, "JNK signaling is necessary for lentivirus gene transfer", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Los Angeles, CA, September 26-29, 2007.
105. Liana M. Lugo-Recart and **S.T. Andreadis**, "In vivo stratification of epidermal tissue on vascularized scaffolds", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Los Angeles, CA, September 26-29, 2007.
106. P. Koria, M.H. Lee and **S.T. Andreadis**, "JNK controls cell migration by regulating adherens junctions", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Los Angeles, CA, September 26-29, 2007.

107. R. Singh and **S.T. Andreadis**, "PKC-delta binds to E-cadherin and mediates EGF induced cell-scattering", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Los Angeles, CA, September 26-29, 2007.
108. P. Koria, M.H. Lee and **S.T. Andreadis**, "JNK affects epithelial cell migration and wound healing by regulating formation of adherens junctions", *2nd Annual Methods in Bioengineering Conference*, Boston, MA, July 12-13, 2007.
109. J.Y. Liu, D.D. Swartz, H.F. Peng, S.F. Gugino, J.A. Russell, and **S.T. Andreadis**, "Functional tissue-engineered blood vessels from bone marrow stem cells", *2nd Annual Methods in Bioengineering Conference*, Boston, MA, July 12-13, 2007.
110. J.Y. Liu, H.F. Peng, D.D. Swartz and **S.T. Andreadis**, "Contractile smooth muscle cells derived from hair follicle stem cells" *Tissue Engineering and Regenerative Medicine Conference and Exposition*, Toronto, June 13-16, 2007.
111. P. Koria and **S.T. Andreadis**, "JNK signaling controls wound healing by regulating assembly of adherens junctions" *Tissue Engineering and Regenerative Medicine Conference and Exposition*, Toronto, June 13-16, 2007.
112. J. Tian, P. Lei, S.G. Laychock and **S.T. Andreadis**, "Controlled secretion of insulin from gene modified tissue engineered skin for treatment of diabetes" *Tissue Engineering and Regenerative Medicine Conference and Exposition*, Toronto, June 13-16, 2007.
113. R. Singh and **S.T. Andreadis**, "Intracellular signaling pathways affecting retroviral gene transfer to epithelial cells" *Tissue Engineering and Regenerative Medicine Conference and Exposition*, Toronto, June 13-16, 2007.
114. L. Lugo and **S.T. Andreadis**, "Growth Factor Infiltration into Human Acellular Dermis Promotes Angiogenesis In Vivo" *University at Buffalo, Department of Surgery's Third Annual Research Day*, Buffalo, NY, May 31, 2007.
115. L. Lugo and **S.T. Andreadis**, "Fibrin Delivery of Keratinocyte Growth Factor Promotes Epidermal Proliferation of Bioengineered Skin Substitutes" *University at Buffalo, Department of Surgery's Third Annual Research Day*, Buffalo, NY, May 31, 2007.
116. L. Lugo and **S.T. Andreadis**, "Growth Factor Infiltration into Human Acellular Dermis Promotes Angiogenesis In Vivo" *University at Buffalo Medical School Scholarly Exchange Day,* Buffalo, NY, May 4, 2007.
117. J.Y. Liu, D.D. Swartz, S.F. Guigino, J.A. Russell and **S.T. Andreadis**, "Engineering of implantable, bi-layered tissue-engineered blood vessels from adult bone marrow stem cells", *Annual Meeting of the American Institute of Chemical Engineers*, San Francisco, CA, November 16, 2006.
118. P. Koria, **S.T. Andreadis**, "Migratory and Proliferative effects of KGF are mediated by ERK 1/2 MAPKinase Pathway and CCAAT/enhancer binding proteins", *Annual Meeting of the American Institute of Chemical Engineers*, San Francisco, CA, November 16, 2006.
119. P. Lei, J. Tian, S.G. Laychock and **S.T. Andreadis**, "Regulated production of biologically active insulin from human engineered skin substitutes for treatment of diabetes", *Annual Meeting of the American Institute of Chemical Engineers*, San Francisco, CA, November 15, 2006.

120. R. Singh, **S.T. Andreadis**, "EGF Ligands Decrease Retroviral Gene Transfer through Protein Kinase C-delta", *Annual Meeting of the American Institute of Chemical Engineers*, San Francisco, CA, November 14, 2006.
121. Jun Wang, S.T. Andreadis and **T.J. Mountziaris**, "Development of Novel Clinical Diagnostic Tools Using Zinc Selenide Quantum Dots as Fluorescent Labels", *Annual Meeting of the American Institute of Chemical Engineers*, San Francisco, CA, November 14, 2006.
122. P. Koria, **S.T. Andreadis**, "Involvement of JNK in cellular trafficking of adherens junction proteins E-cadherin and b-catenin: Implication to cell-cell adhesion", *Annual Meeting of the American Institute of Chemical Engineers*, San Francisco, CA, November 13, 2006.
123. J.Y. Liu, D.D. Swartz, S.F. Guigino, J.A. Russell and **S.T. Andreadis**, "Implantable Tissue Engineered Blood Vessels from Bone Marrow Stem Cells", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Chicago, IL, October 10-13, 2006.
124. R. Singh, **S.T. Andreadis**, "EGFR signaling pathways affect retroviral gene transfer to epithelial cells", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Chicago, IL, October 10-13, 2006.
125. P. Koria, **S.T. Andreadis**, "Distinct c/ebp isoforms mediate KGF-induced migration and proliferation of epithelial cells", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Chicago, IL, October 10-13, 2006.
126. P. Koria, **S.T. Andreadis**, "Involvement of JNK in endocytosis of adherens junction protein E-cadherin", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Chicago, IL, October 10-13, 2006.
127. J.Y. Liu, L. Yao, D.D. Swartz and **S.T. Andreadis**, "Engineering of implantable tissue-engineered blood vessels from bone marrow stem cells", *1st Annual Methods in Bioengineering Conference*, Boston, MA, July 17-18, 2006.
128. P. Koria and **S.T. Andreadis**, "Distinct C/EBP Isoforms Mediate Integrin Expression and Proliferation of Epidermal Keratinocytes and Bioengineered Skin Substitutes", *1st Annual Methods in Bioengineering Conference*, Boston, MA, July 17-18, 2006.
129. R. Singh, **S.T. Andreadis**, "EGF Ligands Decrease Retroviral Gene Transfer through Protein Kinase C-delta", *American Society of Gene Therapy (ASGT) 9th Annual Meeting*, Baltimore, MD, May 31-June 4, 2006.
130. J. Liu, D.D. Swartz, L. Yao, S.F. Guigino, J.A. Russell and **S.T. Andreadis**, "Vasoreactive Tissue-Engineered Blood Vessels from Bone Marrow Stem Cells", *Regenerate World Congress on Tissue Engineering and Regenerative Medicine,* Pittsburgh, PA, April 25, 2006.
131. P. Koria and **S.T. Andreadis,** "KGF upregulates integrin a_5b_1 in tissue engineered skin through the ERK 1/2 MAPK pathway", *Regenerate World Congress on Tissue Engineering and Regenerative Medicine,* Pittsburgh, PA, April 25, 2006.
132. P. Lei, A. Ogunade, S.G. Laychock, K.L. Kirkwood and **S.T. Andreadis,** "Gene Modified Insulin-Secreting Tissue Engineered Skin for Treatment of Diabetes", *Regenerate World Congress on Tissue Engineering and Regenerative Medicine,* Pittsburgh, PA, April 25, 2006.

133. Jun Wang, S.T. Andreadis and **T.J. Mountziaris**, "Synthesis, Surface Functionalization, and Clinical Diagnostic Applications of Zinc Selenide Quantum Dots", *Materials Research Society Meeting*, San Francisco, CA, April 20 - 21, 2006
134. P. Koria and **S.T. Andreadis,** "Transcriptional Profiling of Engineered Skin: Mechanistic insights to Epidermal Development and Stratification", *Annual Meeting of the American Institute of Chemical Engineers*, Cincinnati, OH, November 3, 2005.
135. P. Lei, A. Ogunade, S.G. Laychock, K.L. Kirkwood and **S.T. Andreadis,** "High levels of insulin production from genetically modified skin substitutes for treatment of diabetes", *Annual Meeting of the American Institute of Chemical Engineers*, Cincinnati, OH, November 2, 2005.
136. J. Liu, D.D. Swartz, L. Yao and **S.T. Andreadis,** "Functional Tissue-Engineered Blood Vessels Derived-from Bone Marrow Mesenchymal Stem Cells", *Annual Meeting of the American Institute of Chemical Engineers*, Cincinnati, OH, November 2, 2005.
137. L. Yao and **S.T. Andreadis,** "Strength Enhancement for Arterial-Implantable Fibrin Based TEV", *Annual Meeting of the American Institute of Chemical Engineers*, Cincinnati, OH, November 2, 2005.
138. R. Singh and **S.T. Andreadis,** "EGF Receptor Signaling Affects Retroviral Gene Transfer to Primary Epidermal Cells", *Annual Meeting of the American Institute of Chemical Engineers*, Cincinnati, OH, October 31, 2005.
139. P. Koria and **S.T. Andreadis,** "The Role of JNK Signaling in Cell-Cell Adhesion and Differentiation of Epithelial Cells: Implications for Tissue Engineering of Stratified Epithelium", *Annual Meeting of the American Institute of Chemical Engineers*, Cincinnati, OH, October 31, 2005.
140. J. Wang, **S.T. Andreadis** and T.J. Mountziaris, "Synthesis Functionalization and Clinical Diagnostic Applications of Znse Quantum Dots", *Annual Meeting of the American Institute of Chemical Engineers*, Cincinnati, OH, October 31, 2005.
141. P. Koria and **S.T. Andreadis,** "The Role of JNK Signaling in Cell-Cell Adhesion and Differentiation of Epithelial Cells", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Baltimore, MD, October 1, 2005.
142. P. Lei, A. Ogunade and **S.T. Andreadis,** "Regulated production of mature insulin from gene modified skin equivalents for treatment of diabetes", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Baltimore, MD, September 30, 2005.
143. R. Singh and **S.T. Andreadis,** "Protein kinase C isoforms mediate the effect of EGF on retroviral gene transfer to epithelial cells", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Baltimore, MD, September 30, 2005.
144. J. Liu, D.D. Swartz, S. Guigino, L. Yao, J.A. Russell and **S.T. Andreadis,** "Vasoreactive tissue-engineered blood vessels from bone marrow derived smooth muscle cells", *Annual Fall Meeting of the Biomedical Engineering Society (BMES)*, Baltimore, MD, September 29, 2005.
145. **S.T. Andreadis,** "Integrin Signaling in Retroviral Gene Transfer to Epithelial Stem Cells", *2nd International Conference in Tissue Engineering, Crete, Greece,* May 22-24, 2005
146. **S.T. Andreadis,** "Cell-controlled Release of Keratinocyte Growth Factor Accelerates Wound Healing *in vitro* and *in vivo*", *2nd International Conference in Tissue Engineering, Crete, Greece,* May 22-24, 2005

147. **S.T. Andreadis,** "Tissue Engineering of Implantable Small-Diameter Blood Vessels", *2nd International Conference in Tissue Engineering, Crete, Greece,* May 22-24, 2005
148. **S.T. Andreadis,** "Insulin Delivery through Genetically Modified Living Skin Equivalents for Treatment of Diabetes", *ET 2005: Engineering Tissues Conference,* Sea Pines Plantation, Hilton Head, SC, March 9-13, 2005
149. L. Yao, D.D. Swartz, J.A. Russell and **S.T. Andreadis,** "Fibrin-based tissue engineered blood vessels: differential effects of biomaterial and culture parameters on mechanical strength and vascular reactivity", *ET 2005: Engineering Tissues Conference,* Sea Pines Plantation, Hilton Head, SC, March 9-13, 2005.
150. D.J. Geer, J. Liu, D.D. Swartz and **S.T. Andreadis,** "Cell-Controlled Delivery of Keratinocyte Growth Factor Promotes Wound Healing In Vitro and In Vivo ", *ET 2005: Engineering Tissues Conference,* Sea Pines Plantation, Hilton Head, SC, March 9-13, 2005.
151. R. Singh and **S.T. Andreadis,** "Epidermal and hepatocyte growth factors inhibit retroviral gene transfer to primary keratinocytes by murine leukemia virus", *Annual Meeting of the American Institute of Chemical Engineers*, Austin, TX, November, 11, 2004
152. P. Lei and **S.T. Andreadis,** "Genetically modified tissue engineered skin for insulin delivery", *Annual Meeting of the American Institute of Chemical Engineers*, Austin, TX, November, 10, 2004
153. L. Yao, D.D. Swartz and **S.T. Andreadis,** "Fibrin-based tissue engineered blood vessels: vasoreactive properties and implantation in vivo", *Annual Meeting of the American Institute of Chemical Engineers*, Austin, TX, November, 10, 2004
154. P. Koria and **S.T. Andreadis,** "Keratinocyte growth factor upregulates integrin alpha5-beta1 in epidermal keratinocytes and tissue engineered skin equivalents through the ERK 1/2 MAP kinase pathway", *Annual Meeting of the American Institute of Chemical Engineers*, Austin, TX, November, 10, 2004
155. B.G. Bajaj, R. Singh and **S.T. Andreadis,** "Role of integrins in retroviral gene delivery to human epidermal keratinocytes", *Annual Meeting of the American Institute of Chemical Engineers*, Austin, TX, November, 10, 2004
156. J. Wang, **S.T. Andreadis** and T.J. Mountziaris, "Synthesis and Functionalization of Luminescent II-VI Quantum Dots and their use for Sensing DNA", *Annual Meeting of the American Institute of Chemical Engineers*, Austin, TX, November, 10, 2004
157. D.J. Geer, D.D. Swartz and **S.T. Andreadis,** "Cell-controlled delivery of keratinocyte growth factor accelerates wound healing in vivo", *Annual Meeting of the American Institute of Chemical Engineers*, Austin, TX, November, 9, 2004
158. D.J. Geer, D.D Swartz and **S.T. Andreadis,** "Controlled delivery of keratinocyte growth factor promotes healing of acute and chronic wounds", *Annual Fall Meeting of the Biomedical Engineering Society*, Philadelphia, PA, October, 16, 2004.
159. L. Yao, D.D Swartz and **S.T. Andreadis,** "Cell-cell interactions in reactivity and implantation of tissue engineered blood vessels", *Annual Fall Meeting of the Biomedical Engineering Society*, Philadelphia, PA, October, 15, 2004.
160. R. Singh and **S.T. Andreadis,** "Growth factor-mediated signaling pathways affect retroviral gene transfer to human epithelial cells", *Annual Fall Meeting of the Biomedical Engineering Society*, Philadelphia, PA, October, 15, 2004.

161. P. Lei and **S.T. Andreadis,** "Development of tissue engineered skin for systemic delivery of insulin in vivo", *Annual Fall Meeting of the Biomedical Engineering Society*, Philadelphia, PA, October, 14, 2004.
162. P. Koria and **S.T. Andreadis,** "Keratinocyte growth factor upregulates integrin alpha5-beta1 through the ERK1/2 MAP kinase pathway", *Annual Fall Meeting of the Biomedical Engineering Society*, Philadelphia, PA, October, 14, 2004.
163. B.G. Bajaj, R. Singh and **S.T. Andreadis,** "Integrin signaling in retroviral gene transfer to epithelial cells", *Annual Fall Meeting of the Biomedical Engineering Society*, Philadelphia, PA, October, 14, 2004.
164. D.J. Geer, P. Lei, D.D. Swartz and **S.T. Andreadis,** "Cell-Controlled Growth Factor and Gene Delivery Enhances Wound Healing in a Novel Model of Tissue Regeneration", *Materials Research Society Meeting,* Boston, MA, December 3, 2003.
165. R. Singh, J.M. Nitsche and S.T. Andreadis "An Integrated Reaction-Transport Model for DNA Surface Hybridization: Implications for DNA Microarrays", *Annual Meeting of American Institute of Chemical Engineers*, San Francisco, CA, November 17, 2003.
166. D.D Swartz, J.A. Russell and **S.T. Andreadis,** "Effects of Mechanical Forces on the Development of Small-diameter Tissue-engineered Blood Vessels", *Annual Meeting of American Institute of Chemical Engineers*, San Francisco, CA, November 17, 2003.
167. P. Koria and **.T. Andreadis,** "Functional Genomics in Tissue Engineering: The Role of the Air-liquid Interface in the Development of Tissue Engineered Skin", *Annual Meeting of American Institute of Chemical Engineers*, San Francisco, CA, November 17, 2003.
168. P. Lei and **S.T. Andreadis,** "Rate-limiting Steps in Retrovirus Synthesis and Assembly", *Annual Meeting of American Institute of Chemical Engineers*, San Francisco, CA, November 18, 2003.
169. D.J. Geer and **S.T. Andreadis,** "Controlled Delivery of Keratinocyte Growth Factor Promotes Wound Healing In Vitro and In Vivo", *Annual Meeting of American Institute of Chemical Engineers*, San Francisco, CA, November 19, 2003.
170. P. Koria and **S.T. Andreadis,** "Keratinocyte Growth Factor Upregulates Integrin alpha5-beta1 in Epidermal Keratinocytes And Tissue Engineered Skin Equivalents", *Annual Meeting of American Institute of Chemical Engineers*, San Francisco, CA, November 20, 2003.
171. Jun Wang, **S.T. Andreadis** and T.J. Mountziaris, "Functionalized ZnSe Quantum Dots as Luminescent Tags in High-Throughput Biological Assays", *Annual Meeting of American Institute of Chemical Engineers*, San Francisco, CA, November 20, 2003.
172. B.G. Bajaj and **S.T. Andreadis,** "Gene Transfer to Human Epidermal Stem Cells with Fibronectin-immobilized Retrovirus", *Annual Meeting of American Institute of Chemical Engineers*, San Francisco, CA, November 21, 2003.
173. R. Singh, J.M. Nitsche and S.T. Andreadis "Biophysics of surface DNA hybridization: implications for DNA microarrays", *Annual Fall Meeting of the Biomedical Engineering Society*, Nashville TN, October, 2, 2003.
174. P. Lei and **S.T. Andreadis,** "Production of Recombinant Retrovirus is Limited by mRNA Synthesis and Encapsidation", *Annual Fall Meeting of the Biomedical Engineering Society*, Nashville TN, October, 2, 2003.

175. D.D Swartz, J.A. Russell and **S.T. Andreadis,** "Small-diameter Tissue-engineered Vasculature: Effects of Mechanical Forces on Structure and Function", *Annual Fall Meeting of the Biomedical Engineering Society*, Nashville TN, October, 2, 2003.
176. P. Koria and **.T. Andreadis,** "Functional Genomics to Understand Development of Tissue Engineered Skin", *Annual Fall Meeting of the Biomedical Engineering Society*, Nashville TN, October, 3, 2003.
177. D.J. Geer and **S.T. Andreadis,** "Cell-Controlled Release of Keratinocyte Growth Factor Promotes Healing of Skin Wounds", *Annual Fall Meeting of the Biomedical Engineering Society*, Nashville TN, October, 3, 2003.
178. B.G. Bajaj and **S.T. Andreadis,** "Selective Transduction of Human Epidermal Stem Cells with Fibronectin-Immobilized Retrovirus", *Annual Fall Meeting of the Biomedical Engineering Society*, Nashville TN, October, 3, 2003.
179. B.G. Bajaj, S. Behshad, P. Lei and **S.T. Andreadis**, "Gene transfer to human epidermal stem cells with fibronectin-immobilized retrovirus", Gordon Research Conference, Epithelial Differentiation and Keratinization, Tilton, NH, July 13-18, 2003.
180. B.G. Bajaj and **S.T. Andreadis**, "Retrovirus gene transfer to epidermal stem cells: the role of integrins and extracellular matrix", *American Chemical Society 225th Meeting*, New Orleans, LA, March 23-27, 2003.
181. P. Koria, D. Brazeau, P. Hayden & **S.T. Andreadis,** "Functional genomics in tissue engineering: gene expression profile of engineered skin equivalents subjected to barrier disruption", *American Chemical Society 225th Meeting*, New Orleans, LA, March 23-27, 2003.
182. D.J. Geer and **S.T. Andreadis**, "Development of in vitro and in vivo models of wound healing based on engineered tissues: a novel role of fibrin in wound healing", *American Chemical Society 225th Meeting*, New Orleans, LA, March 23-27, 2003.
183. B. G. Bajaj and **S.T. Andreadis**, "Retroviral gene transfer to epidermal stem cells: implications for tissue engineering", *Engineering Tissue Growth International Conference & Exposition (ETG)*, Pittsburgh, PA, March 17-20, 2003.
184. P. Koria, D. Brazeau, P. Hayden & **S.T. Andreadis,** "Functional genomics in tissue engineering: gene expression profiles of tissue engineered skin subjected to barrier disruption", *Engineering Tissue Growth International Conference & Exposition (ETG)*, Pittsburgh, PA, March 17-20, 2003.
185. D.D. Swartz, J. Russell, **S.T. Andreadis,** "Tissue engineering of small diameter functional vessels: effects of pulsatile forces on vessel reactivity", *Engineering Tissue Growth International Conference & Exposition (ETG)*, Pittsburgh, PA, March 17-20, 2003.
186. D.D. Swartz, J. Russell, **S.T. Andreadis,** "Tissue-engineering of functional small-diameter vessels", *Tissue Engineering Meeting*, Cold Spring Harbor Laboratory, November 21-24, 2002.
187. B.G. Bajaj & **S.T. Andreadis,** "Retroviral gene transfer of epidermal stem cells on extracellular matrix", *Tissue Engineering Meeting*, Cold Spring Harbor Laboratory, November 21-24, 2002.
188. P. Koria, D. Brazeau, P. Hayden & **S.T. Andreadis,** "Functional genomics in tissue engineering: gene expression profile of engineered skin equivalents subjected to barrier disruption", *Tissue Engineering Meeting*, Cold Spring Harbor Laboratory, November 21-24, 2002.

189. D.D. Swartz, J. Russell, **S.T. Andreadis,** "A tissue-engineered vessel developed from fibrin gels", *Annual Meeting of American Institute of Chemical Engineers*, Indianapolis, IN, November 7, 2002.
190. P. Lei & **S.T. Andreadis,** "Quantitative studies of the rate-limiting steps in retroviral production and gene transfer", *Annual Meeting of American Institute of Chemical Engineers*, Indianapolis, IN, November 7, 2002.
191. B.G. Bajaj & **S.T. Andreadis,** "Efficient transduction of epidermal stem cells with fibronectin immobilized retrovirus", *Annual Meeting of American Institute of Chemical Engineers*, Indianapolis, IN, November 6, 2002.
192. P. Koria, D. Brazeau, P. Hayden & **S.T. Andreadis,** "Differential gene expression analysis of engineered skin substitutes subjected to chemical injury", *Annual Meeting of American Institute of Chemical Engineers*, Indianapolis, IN, November 5, 2002.
193. D.J. Geer, D.D. Swartz & **S.T. Andreadis,** "Differential effects of fibrin in two- and three-dimensional migration", *Annual Meeting of American Institute of Chemical Engineers*, Indianapolis, IN, November 4, 2002.
194. D.D. Swartz, J. Russell, **S.T. Andreadis,** "Development of fibrin-based tissue engineered vessels", *Annual Fall Meeting of the Biomedical Engineering Society*, Houston, TX, October, 26, 2002.
195. B. Bajaj & **S.T. Andreadis,** "Efficient retroviral gene transfer to epidermal stem cells on recombinant fibronectin", *Annual Fall Meeting of the Biomedical Engineering Society*, Houston, TX, October, 26, 2002.
196. P. Lei & **S.T. Andreadis,** "Rate-limiting steps in retrovirus production and gene transfer", *Annual Fall Meeting of the Biomedical Engineering Society*, Houston, TX, October, 25, 2002.
197. P. Koria, D. Brazeau, P. Hayden & **S.T. Andreadis,** "Gene Expression Profiling in Engineered Skin Substitutes Subjected to Chemical Injury: Protective Effects of Keratinocyte Growth Factor", *Annual Fall Meeting of the Biomedical Engineering Society*, Houston, TX, October, 24, 2002.
198. D.J. Geer & **S.T. Andreadis,** "Fibrin-mediated delivery of KGF in 2D and 3D models of wound regeneration", *Annual Fall Meeting of the Biomedical Engineering Society*, Houston, TX, October, 23, 2002.
199. **S.T. Andreadis,** "Engineering gene therapy for epidermal stem cells", The Whitaker Foundation Biomedical Engineering Research Conference, La Jolla, CA, August 8-11, 2002.
200. S. Behshad & **S.T. Andreadis,** "Retroviral gene transfer to epidermal stem cells", *Annual Meeting of American Institute of Chemical Engineers*, Reno, NV, November 7, 2001.
201. B. Bajaj, P. Lei & **S.T. Andreadis,** "Immobilization of recombinant retrovirus to fibronectin for gene transfer: factors that mediate virus binding", *Annual Meeting of American Institute of Chemical Engineers*, Reno, NV, November 8, 2001.
202. D.J. Geer, D.D. Swartz & **S.T. Andreadis, "**Fibrin Promotes Reepithelialization of Engineered Skin Equivalents", *Annual Meeting of American Institute of Chemical Engineers*, Reno, NV, November 8, 2001.
203. S. Behshad & **S.T. Andreadis** "Retroviral gene transfer to epidermal cells correlates with stem cell phenotype", *Annual Fall Meeting of the Biomedical Engineering Society*, RDU, NC, October, 6, 2001.

204. P. Lei, B. Bajaj & **S.T. Andreadis** "Mechanistic studies of retrovirus gene transfer on recombinant fibronectin", *Annual Fall Meeting of the Biomedical Engineering Society*, RDU, NC, October, 6, 2001.
205. D.J. Geer, D.D. Swartz & **S.T. Andreadis** "Effects of fibrin on cell migration and differentiation during wound healing of skin equivalents", *Annual Fall Meeting of the Biomedical Engineering Society*, RDU, NC, October, 6, 2001.
206. D.J. Geer, D.D. Swartz & **S.T. Andreadis** "Effects of Bioactive Gels and Keratinocyte Growth Factor on Reepithelialization of Wounded Skin Equivalents", presented at the *Annual Research Day of the Center for Advanced Molecular Biology and Immunology (CAMBI)*, SUNY - Buffalo, Buffalo, NY, January 10, 2001.
207. B. Bajaj, P. Lei & **S.T. Andreadis** "Gene Transfer using Recombinant Retroviruses Immobilized on Extracellular Matrix Molecules", presented at the *Annual Research Day of the Center for Advanced Molecular Biology and Immunology (CAMBI)*, SUNY - Buffalo, Buffalo, NY, January 10, 2001.
208. **S.T. Andreadis,** D.J. Geer & D.D. Swartz "Development of *in vitro* Model of Wound Re-Epithelialization", *Annual Meeting of American Institute of Chemical Engineers*, Los Angeles, CA, November 16, 2000.
209. **S.T. Andreadis,** B. Bajaj & P. Lei "High Efficiencies of Gene Transfer using Immobilized Recombinant Retroviruses", *Annual Meeting of American Institute of Chemical Engineers*, Los Angeles, CA, November 13, 2000.
210. **S.T. Andreadis**, B. Bajaj & P. Lei "Interaction of Recombinant Retroviruses with Fibronectin Yields High Efficiencies of Gene Transfer", *Annual Fall Meeting of the Biomedical Engineering Society*, Seattle, WA, October, 13, 2000.
211. **S.T. Andreadis**, Yarmush, M.L. & Morgan, J.R. "Genetically Modified Skin Equivalents for Wound Healing: Paracrine and Autocrine Actions of Keratinocyte Growth Factor", presented at the *Annual Meeting of American Institute of Chemical Engineers*, Dallas, Texas, November 5, 1999.
212. **S.T. Andreadis**, Yarmush, M.L., Palsson, B.O. & Morgan, J.R. "Quantitation of Rate-Limiting Steps in Retrovirus-Mediated Gene Transfer". *Annual Meeting of American Institute of Chemical Engineers*, Dallas, Texas, November 3, 1999.
213. **S.T. Andreadis**, M.L. Yarmush & J.R. Morgan, "Effects of keratinocyte growth factor on *in vitro* engineered, genetically modified human epidermis: paracrine versus autocrine actions". *Annual Fall Meeting of the Biomedical Engineering Society*, Atlanta, GA, October 16, 1999.
214. **S.T. Andreadis**, Yarmush, M.L. & Morgan, J.R. "Effects of KGF on *in vitro* reconstituted genetically modified human epidermis". *Annual Meeting of American Institute of Chemical Engineers*, Miami, FL, November 15-20, 1998.
215. J.R. Morgan, S. Eming, D. Medalie, **S.T. Andreadis**, K. Hamoen, G. Pins, "Growth Factor Delivery from Genetically Modified Skin Grafts". *BioMedical Engineering Society (BMES)*, Cleveland, OH, Oct 10-13, 1998.
216. M.L. Yarmush, J. LeDoux, **S.T. Andreadis**, C. Roth and J. R. Morgan, "Evaluation of extracellular events in retrovirus mediated gene transfer". *BioMedical Engineering Society (BMES)*, San Diego, CA, June 1997.
217. B.O. Palsson & **S.T. Andreadis**, "Intracellular stability of retroviral vectors". *American Society of Hematology Meeting*, Miami, FL, December 8-10, 1996.

218. **S.T. Andreadis** & B.O. Palsson, "Intracellular stability of retroviral vectors: a rate limiting factor in retrovirus-mediated gene transfer". *rDNA Biotechnology: Metabolic Engineering Meeting*, Danvers, MA, October 6-11, 1996.
219. B.O. Palsson, **S.T. Andreadis** & A.C. Chuck, "The rate limiting steps in retroviral mediated gene transfer". *Gene Therapy Meeting*, Cold Spring Harbor Laboratory, NY, September 25-29, 1996.
220. **S.T. Andreadis** & B.O. Palsson, "Retroviral infection kinetics: the role of the cell cycle status of NIH-3T3 cells". *Annual Meeting of American Institute of Chemical Engineers*, November 13-19, Miami, FL, 1995.