

Gregory P Botta

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Cherry Hill, NJ 08002

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412.337.1719

Education

Drexel University College of Medicine: MD/PhD Program	Philadelphia, PA, USA
MD: Doctor of Medicine	08/2006 - 05/2012

Drexel University College of Medicine: MD/PhD Program	Philadelphia, PA, USA
Molecular, Cellular, Biochemistry, and Genetics Department	08/2006 - 05/2010
PhD: Oncological Engineering	

University of Pittsburgh	Pittsburgh, PA, USA
Bioengineering Graduate Program	05/2004 - 06/2006

Carnegie Mellon University	Pittsburgh, PA, USA
Bachelor of Science: Information Systems & Biomedical Engineering	08/2000 - 05/2004

Current Research

Human Pancreatic K-Ras Regulates TIMP/MMP Directed Invasion via a MEK Mediated Pathway in 3-D	2008-2010
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Gregory P. Botta^{1,4}, Mauricio Reginato, PhD¹, Jane Clifford, PhD¹, Maureen Murphy²,
Anil K. Rustgi, MD³, Peter Lelkes, PhD^{1,4}

¹Drexel University College of Medicine

²Fox Chase Cancer Institute

³University of Pennsylvania School of Medicine

⁴Drexel University School of Biomedical Engineering

Tension Synergistically Activates K-RAS, Mediating Tumorigenic Transformation and Overexpression of MMPs in an <i>in vitro</i> Human Pancreatic Adenocarcinoma Model	2008-2010
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Gregory P. Botta^{1,2}, Anant Chopra², Mauricio Reginato, PhD¹, Anil K. Rustgi, MD³, Peter Lelkes, PhD^{1,2}

¹Drexel University College of Medicine

²Drexel University School of Biomedical Engineering

³University of Pennsylvania School of Medicine

N-Cadherin mediated mechanosensitivity and its role in myocyte cytoskeleton remodeling	2008-2010
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Anant Chopra¹, Erdem Tabdanov^{1,3}, MD, Gregory Botta^{1,2}, J. Yasha Kresh, PhD^{1,3}, Paul Janmey³, PhD

¹Drexel University School of Biomedical Engineering

²Drexel University College of Medicine

³University of Pennsylvania School of Medicine

Novel, Real-Time Assessment of Three-Dimensional Cell Aggregation in Rotating Wall Vessel Bioreactors <i>in vitro</i>	2006-2009
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Gregory P. Botta¹, Prakash Manley², Steven Miller², Peter Lelkes, PhD^{1,2}

¹Drexel University College of Medicine

²Drexel University School of Biomedical Engineering

Past Research

γ Sp1101 Antibody is a Selective Marker for DNA Double Strand Breaks Following Treatment with Radiomimetic Anti-proliferative Drugs

Jane Clifford, PhD
Drexel University College of Medicine
Department of Biochemistry

Sex Differences in Skeletal Muscle Stem Cell Transplantation for Myocardial Infarct Repair

Johnny Huard, PhD
University of Pittsburgh Bioengineering
Children's Hospital of Pittsburgh

Retinoid Compound Modeling for Cancer Treatment

Robert Parker, PhD
University of Pittsburgh
Department of Chemical Engineering

Internships/Clinics/Residencies/Fellowships

Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral MD/PhD Fellows (F30)

National Institutes of Health (NIH)
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

University of Pittsburgh Artificial Heart & Transplant Program Fellow

Robert Kormos, MD
University of Pittsburgh Medical Center
Cardiothoracic Transplantation

Cardiovascular Stem Cell Researcher

Johnny Huard, PhD
University of Pittsburgh Bioengineering
Children's Hospital of Pittsburgh

Pittsburgh Tissue Engineering Initiative Fellow

Robert Parker, PhD
University of Pittsburgh
Department of Chemical Engineering

Publications

- 1.) Botta, G.P., Reginato, M., Rustgi, A.K., Lelkes, P.I., "Human Pancreatic K-Ras Regulates TIMP/MMP Directed Invasion via a MEK Mediated Pathway in 3-D". 2010. In Preparation.
- 2.) Botta, G.P., Chopra, A., Reginato, M., Rustgi, A.K., Lelkes, P.I., "Tension Synergistically Activates K-RAS, Mediating Tumorigenic Transformation and Overexpression of MMPs in an *in vitro* Human Pancreatic Adenocarcinoma Model". 2010. In Preparation.
- 2.) Chopra, A., Tabdanov, E., Botta, G.P., Patel, H., Janmey, P., Kresh, J.Y., "N-cadherin-mediated mechanosensitivity and its role in cardiac mechanotransduction". 2010. In Review.
- 3.) Drowley, L., Okada, M., Payne, T., Botta, G.P., Oshima, H., Tobita, K., Keller, B., Huard, J., "Lack of Sex Differences in Muscle Stem Cell Transplantation for Cardiac Repair." *Cell Transplantation*. 2009.
- 4.) Botta, G.P., Manly, P., Miller, S., Lelkes, P.I. "Real-time Assessment of Three-Dimensional Cell Aggregation in Rotating Wall Vessel Bioreactors *in vitro*." *Nature Protocols*. 2006.

Current Support

2010-2014 F-30 Ruth L. Kirschstein National Research Service Award: NIH/NIDDK
1F30DK088402-01

Pending Support

2010 Lustgarten Foundation Grant
2010 Hirshberg Foundation Grant

Presentations

2010 Days of Molecular Medicine: Systems Biology Approaches to Cancer and Metabolic Disease	Stockholm, Sweden
2009 International Conference on Tumor Microenvironment: Progression, Therapy & Prevention	Paris/Versailles, France
2009-2010 American Physician Scientist Association / American Society for Clinical Investigation Annual Meeting	Chicago, IL, USA
2006-2010 Drexel University Discovery Day	Philadelphia, PA, USA
2006-2010 Drexel University Research Symposium	Philadelphia, PA, USA
2007-2008 Regenerate Conference	Toronto, Canada
2006-2007 Regenerate Conference	Pittsburgh, PA, USA

Academic Honors

2010 Massachusetts General Hospital/ Karolinska Institut/ Cell Press DMM Scholarship Recipient
"Human Pancreatic K-Ras Regulates TIMP/MMP Directed Invasion via a MEK Mediated Pathway in 3-D"
Botta, G.P., Reginato, M., Rustgi, A.K., Lelkes, P.I.

2010 Drexel University Research Symposium, First Place: Graduate Student
"N-cadherin-mediated mechanosensitivity and its role in cardiac mechanotransduction"
Chopra, A., Tabdanov, E., Botta, G.P., Patel, H., Janmey, P., Kresh, J.Y.

2009 Drexel University College of Medicine Discovery Day, Third Place: Senior Graduate Student
"Tension Synergistically Activates K-Ras, Mediating Tumorigenic Transformation and Overexpression of
MMPs in an *in vitro* Human Pancreatic Adenocarcinoma Model"
Botta, G.P., Chopra, A., Reginato, M., Rustgi, A.K., Lelkes, P.I.

2008 Drexel University Research Symposium, First Place: Medical Student
"Real-Time Assessment of 3-D Cell Aggregation in Rotating Wall Vessel Bioreactors *in vitro*"
Botta, G.P., Manley, M., Miller, S., and Lelkes, P.I.

2008 Drexel University College of Medicine Professionalism Award
2008 Drexel University College of Medicine Pathology Honor Society

Leadership

2010-2011 American Physician Scientist Association Annual Meeting Chair
2008-2010 American Physician Scientist Association Annual Meeting Vice-Chair
2009-2010 Graduate Student Association Treasurer
2008-2010 American Physician Scientist Association Institutional Representative
2007-2008 Drexel University College of Medicine Gross Anatomy Academic Assistant
2007-2008 Drexel University College of Medicine Physiology Academic Assistant

Professional Conferences

2008-2010 American Physician Scientist Association Regional Meeting	New York, NY, USA
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Professional Memberships

2008-2010 American Association for Cancer Research Associate Member
2008-2010 American Cancer Society Cancer Action Network Member
2008-2010 American Pancreatic Association
2008-2010 American Physician Scientist Association
2007-2008 Cardiology Interest Group President
2006-2010 American Cancer Society
2006-2010 American Medical Students Association
2004-2008 American College of Cardiology
2004-2008 American Heart Association
2000-2010 Biomedical Engineering Society

Licensure/Board Certification

United States Medical License Exam: Step 1

June, 2008

Work Experience

Lehman Brothers Holdings Inc.
Investment Trading Systems Information Analyst

New York, NY, USA
2003 - 2004

Language Skills

Basic Spanish & Italian Languages

Activities & Interests

Travel, Running, Cooking, Sailing, Snow Sports, Golfing