

CURRICULUM VITAE

BETH A. ZIELINSKI

1. Name, Position, Academic Department

Beth A. Zielinski
Lecturer
Director of Industry Outreach, Center for Biomedical Engineering
Department of Molecular Pharmacology, Physiology & Biotechnology
Brown University
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2. Home Address

16 Bryant Drive
North Kingstown, RI
02852

3. Education

1987 B.S. Providence College (Biology)
1993 MSc. Brown University (Medical Sciences)
1997 Ph.D. Brown University (Biomedical Engineering)
Dissertation title: *Cell Encapsulated Immunotherapy for the Treatment of Metastatic Melanoma*

4. Professional appointments

1997-1998 Post-Doctoral Fellow, Miriam Hospital, Providence, RI
1998-2001 Special Lecturer, Department of Biology, Providence College, Providence, RI
1999-2001 Special Lecturer, Program in Paramedicine, Pawtucket Memorial Hospital, Pawtucket, RI
1998-2007 Visiting Lecturer, Graduate Program in Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI
2000-2007 Adjunct Assistant Professor, Department of Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI
2000-2007 Co-Director, Biotechnology Manufacturing Program, University of Rhode Island, Providence, RI

- 2001-2004 Course leader, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2004- Course leader, Drug and Gene Delivery, Pfizer Global Research MA Program, Brown University, Providence, RI
- 2004-2007 Instructor, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2005- Instructor, Pre-College Programs, Continuing Education and Summer Studies, Brown University, Providence, RI
- 2007- Lecturer, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2007- Invited Lecturer, Department of Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI
- 2007- Invited Lecturer, Graduate Program in Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI
- 2007- Course Leader, Rhode Island Department of Education, University of Rhode Island, Providence, RI
- 2010-2012 STEM Instructor, RI NSF EPSCoR, Providence, RI
- 2010- STEM Instructor, RI Tech Collective Educational Initiatives, Providence, RI
- 2010- Lecturer, Rhode Island K-12 Forensics Science and Biotechnology Outreach
- 2015- Senior Lecturer, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI

5. Teaching

a. University graduate level

- 1998-2007 Visiting Lecturer, “Medicinal Biochemistry”, Graduate Program in Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI
- 2004- Course leader, “Drug and Gene Delivery”, Department of Molecular Pharmacology, Biotechnology & Physiology, Brown University and Pfizer Global Research MA Program
- 2007- Invited Lecturer, “Medical Biochemistry”, Department of Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI
- 2015 Invited Lecturer, “Graduate Research Methods and Scholarly Writing”, Harvard Graduate Studies, Harvard University, Cambridge, MA

b. University undergraduate level

- 1998-1999 Special Lecturer, “Human Biology”, Department of Biology, Providence College, Providence, RI
- 2000-2001 Special Lecturer, “Physiology”, Department of Biology, Providence College, Providence, RI
- 2000-2007 Adjunct Assistant Professor, “Physiology”, Department of Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI

- 2000-2007 Adjunct Assistant Professor, “Issues in Biotechnology”, Department of Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI
- 2000-2007 Adjunct Assistant Professor, “Biotechnology Manufacturing”, Department of Clinical Chemistry and Health Sciences, University of Rhode Island, Providence, RI
- 2001-2004 Course leader, “Biomaterials”, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2004-2007 Instructor, “Biomaterials”, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2007- Lecturer, “Biomaterials”, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2007- Lecturer, “Biotechnology in Medicine”, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2012- Lecturer, “Techniques in Tissue Culture and Regenerative Medicine”, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015- Senior Lecturer, “Biomaterials”, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015- Senior Lecturer, “Biotechnology in Medicine”, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015- Senior Lecturer, “Techniques in Tissue Culture and Regenerative Medicine”, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI

c. University continuing education

- 2007- Course Leader, “Teaching the Teachers” Science Education and Forensics , Rhode Island Department of Education, University of Rhode Island, Providence, RI

d. K-12

- 2005- Instructor, Pre-College Programs, Continuing Education and Summer Studies, Brown University, Providence, RI
- 2010-2012 STEM Instructor, University of Rhode Island, RI NSF EPSCoR
- 2010- STEM Instructor, RI Tech Collective Educational Initiatives, Providence, RI

6. Completed Research, Scholarship and/or Creative Work

a. Books/monographs (authored and/or edited volumes)

1. Zielinski, B. A., Cell Encapsulated Immunotherapy for the Treatment of Metastatic Melanoma [dissertation]. Brown University, Providence, RI, 1997
2. Zielinski, B. A., Biotechnology in Medicine, Cognella Publishing, 2015

b. Chapters in books

1. Zielinski BA, Goddard MB and Lysaght MJ. Immunoisolation, In: “Textbook of Tissue Engineering,” Lanza R, Langer R and Chick W, eds., RG Landes Company, 1997
2. Zielinski BA and Lysaght MJ. Immunoisolation, In: “Principles of Tissue Engineering, 2nd edition,” Lanza R, Langer R and Vacanti JP, Eds. Academic Press, 26: 321-329, 2000
3. Zielinski BA. Immunoisolation Techniques. In: “Scaffolding in Tissue Engineering”, Ma P and Eliseff J, eds., Taylor and Francis Group, 13: 189-190, 2004
4. Zielinski BA and Lysaght MJ. Immunoisolation, In: “Principles of Tissue Engineering, 3rd edition,” Lanza R, Langer R and Vacanti JP, eds. Academic Press, 26: 399-404, 2007.

c. Refereed journal articles

1. Winn SR, Tresco PA, Zielinski BA, Greene LA, Jaeger CB, Aebischer P. Behavioral recovery following intrastriatal implantation of microencapsulated PC12 cells. *Exp. Neurol.* 113: 322-329, 1991.
2. Winn SR, Tresco PA, Zielinski BA, Sagen J, Aebischer P. Microencapsulated bovine chromaffin cells in vitro: effect of density and coseeding with NGF-releasing cell line. *J. Neural Transplant. Plast.* 3: 115-124, 1992.
3. Joseph JM, Goddard MB, Mills J, Padrun V, Zurn A, Zielinski BA, Favre J, Gardez JP, Mosimann F, Sagen J, Christenson L, Aebischer P. Transplantation of encapsulated bovine chromaffin cells in the sheep subarachnoid space: a preclinical study for the treatment of cancer pain. *Cell Transplant.* 3: 355-364, 1994.
4. Zielinski BA, Aebischer P. Chitosan as a matrix for mammalian cell encapsulation. *Biomaterials* 15: 1049-1056, 1994

d. Non-refereed journal articles

1. Introductory crime scene settings, In: *House Rules*, Simon and Schuster Inc., Jodi Picoult

e. Invited lectures

- 01-19-2011 “Substitutive Medicine”. American Association of Clinical Laboratory Scientists, University of Rhode Island, Providence, RI
- 10-13-2012 “Tissue Engineering and Regenerative Medicine”. Presidential Lecture Series, Eckerd College, St. Petersburg, Fl
- 10-24-2012 “Failure Modes of Orthopedic Devices”. Grand Rounds, Department of Orthopedics, Rhode Island Hospital, Providence, RI

f. Patents

1. Patrick Aebischer and Beth Zielinski. United States Patent # US06140089. “Chitosan core matrix containing cells encapsulated in a thermoplastic semipermeable membrane”. Issued 1999.

2. Patrick Aebischer and Beth Zielinski. United States Patent # US05871985. “Particulate non cross-linked chitosan core matrices for encapsulated cells”. Issued 1994.

7. Service

a. to Brown University

1. Ph.D. thesis committee

- 2007 Peter Cheifetz, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI

2. MSc. thesis committee

- 2009 Christopher Baker, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2013 Katherine Barcay, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Sarah Shin, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Devon Poeta, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Jared Kay, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Kristiana Munoz, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Rebecca Wojciechowicz, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Bailey Willis, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Roy Ruttiman, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Apurva Limaye, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI

3. Biology honors thesis committee

- 2011 Stephanie Cheung, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2011 Cheng Tian, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Eileen Ly, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Jacqueline Chang, Department of Molecular Pharmacology, Physiology & Biotechnology, Brown University, Providence, RI
- 2015 Alison Pruzan, Department of Orthopedics, Brown University, Providence, RI

4. Advising

Freshman advisor

2009 5 students
2010 8 students
2011 8 students
2012 10 students
2013 10 students
2014 6 students
2015 6 students
2016 4 students

Sophomore advisor

2010 5 students
2011 8 students
2012 8 students
2013 10 students
2014 7 students
2015 7 students
2016 6 students

Biology undergraduate advisor

2012 10 students
2013 13 students
2014 3 students
2015 12 students
2016 11 students

5. Biomedical Engineering faculty mentor

2009- Women in Science and Technology, Brown University, Providence, RI

6. Committees

2008 Faculty Team Member for Biomedical Engineering ABET Accreditation, Center for Biomedical Engineering, Brown University, Providence, RI
2009- Advisory Board, Rhode Island Center for Innovation and Entrepreneurship, Brown University, Providence, RI
2011- Provost Committee on Professional Education, Brown University, Providence, RI
2012- Triple Helix Faculty Review Board, Brown University, Providence, RI
2102- Biotechnology/Biomedical Engineering Faculty Trainer, Center for Biomedical Engineering, Brown University, Providence, RI

b. to the Community

- 2016 Panel member, HPAIR Harvard Conference, Harvard University, Cambridge, MA
- 2015 Panel member, Tuft's MedStart Conference
- 1992-1993 Technical instructor and advisor, Department of Biomedical Engineering, University of Lausanne, CHUV, Switzerland
- 1993-1998 Consultant, Cytotherapeutics Inc., Providence, RI
- 2002-2004 Board Member, IACUC, Spherics, Inc., Lincoln, RI
- 2004-2006 Consultant, Spherics, Inc., Lincoln, RI,
- 2006- Ambassador Tech-Collective of Rhode Island, Providence, RI
- 2008- Advisory Board, New England Biotechnology Association, Providence, RI
- 2008- Board of Directors, Catch the Science Bug, Inc., K-4 Science Education, Providence, RI
- 2008- Ad Hoc Advisor, Rhode Island State Police, Headquarters, Scituate, RI
- 2008- On-Call Advisor, Providence Police, Providence, RI
- 2009- External theses reviewer, Graduate Program in Forensic Science, Boston University, Boston, MA
- 2010- Advisory Board, The Empowered Patient, East Greenwich, RI

8. Professional Memberships

- 1994- American Association for the Advancement of Science,
- 1996- New York Academy of Sciences, New York
- 1996- Sigma XI-Scientific Research Society; Division of Engineering, Brown University
- 2005- Forensic Science Partnership, University of Rhode Island, Kingston, RI
- 2007- New England Association of Forensic Science
- 2007 "Who's Who Among America's Teachers"

9. Industry relations

- 2003-2006 Co-Director/Corporate Liaison for the Program in Biotechnology Manufacturing, University of Rhode Island, Providence, RI
Development of a biopharmaceutical industry training laboratory at the University of Rhode Island, Providence, RI
Establishment of collaborations (internships and professional training) between the following companies and The Biotechnology Manufacturing Program at the University of Rhode Island, Providence, RI
 - 2006 Alexion Pharmaceuticals, Inc.
 - 2005 RenaMed Therapeutics Inc.
 - 2004 Organogenesis, Inc.
 - 2004 Avant Pharmaceuticals, Inc.
 - 2004 EpiVax, Inc.
 - 2003 Amgen, Inc.
- 2009- Director, Industry Outreach, Center for Biomedical Engineering, Brown University, Providence, RI

- 2009- Establishment of university and industry collaborations (internships and research) between the following companies and The Center for Biomedical Engineering at Brown University, Providence, RI
- 2015 GE Healthcare, Inc
 - 2015 Amgen, Inc
 - 2014 New Balance, Inc.
 - 2014 Alexion, Inc
 - 2013 Arsenal Medical, Inc.
 - 2013 Biogen Idec, Inc.
 - 2013 Genentech, Inc.
 - 2013 Proctor & Gamble, Inc.
 - 2012 Boston Scientific, Inc.
 - 2012 Eli Lilly, Inc.
 - 2011 Life Technologies, Inc.
 - 2011 MMSD, LLC.
 - 2011 Diavibe, Inc.
 - 2010 Ximedica, Inc.
 - 2010 Sanofi-Aventis-Genzyme, Inc.
 - 2010 CRBard, Inc.
 - 2009 DePuy Spine, Inc.
 - 2009 Johnson & Johnson, Inc.
 - 2009 Organogenesis, Inc.
 - 2009 Medtronic, Inc.
- 2013 Establishment of first Experiential Learning Program (COOP) at Brown University between the following companies and The Center for Biomedical Engineering, Brown University, Providence, RI
- Amgen, Inc.
 - GE Healthcare, Inc.
 - Molecular MS Diagnostics, LLC
 - Thermofisher Scientific, Inc.
 - CRBard, Davol, Inc.
 - New Balance, Inc.
 - Alexion, Inc.
 - Arsenal Medical, Inc.
 - Biogen Idec, Inc.
 - Genentech, Inc.
 - Boston Scientific, Inc.
 - Eli Lilly, Inc.
 - Sanofi-Aventis-Genzyme, Inc
- 2016 Establishment of the Biotechnology Management Track in the Biotechnology Graduate Program, Brown University, Providence, RI

