

CURRICULUM VITAE

Date of Revision: Feb 3, 2016

Name: Lawrence J. Rizzolo, Ph.D., FARVO

Education:

B.A. Rutgers University (Biochemistry) 1973

Ph.D. Duke University (Biochemistry) 1977

Career/Academic Appointments:

- 4/1978-12/1980 Research Fellow with Dr. Eugene P. Kennedy Harvard Medical School, Boston, MA
- 1/1981-6/1985 Research Associate with Dr. David D. Sabatini, NYU School of Medicine, New York, NY
- 7/1985-8/1986 Assistant Professor in Biochemistry, Fels Research Institute, Temple University Medical School, Philadelphia, PA
- 8/1986-6/1993 Assistant Professor of Anatomy and Cell Biology, Emory University School of Medicine, Atlanta, GA
- 1/1988-6/1993 Assistant Professor, Winship Cancer Center, Emory University School of Medicine, Atlanta, GA
- 1/1990-6/1993 Assistant Professor of Ophthalmology, Emory University School of Medicine, Atlanta, GA
- 7/1993-6/1996 Assistant Professor of Surgery (Anatomy) Yale University School of Medicine, New Haven, CT
- 7/1996-6/2015 Associate Professor of Surgery (Anatomy) Yale University School of Medicine, New Haven, CT
- 7/1996-6/2015 Associate Professor of Ophthalmology and Visual Science, Yale University School of Medicine, New Haven, CT
- 7/2009-present Medical School Advisor Board, Touch of Life Technologies, Inc, Aurora, Co
- 7/2013-present Visiting Professor, Peking Union Medical College, Beijing, China
- 7/2015-present Professor of Surgery (Anatomy) Yale University School of Medicine, New Haven, CT
- 7/2015-present Professor of Ophthalmology and Visual Science, Yale University School of Medicine, New Haven, CT

Administrative Positions:

- 1996-present Course Director, Human Anatomy and Development
- 1996-present Director of Medical Studies, Section of Anatomy
- 2007 Acting Chief of the Section of Anatomy, Dept of Surgery

Board Certification: N/A

Professional Honors or Recognition:

International/

2010 Fellow of the Association for Research in Vision and Ophthalmology

National/Regional

1993 Excellence in Teaching, Physician Assistant Program, Emory University

1986 March of Dimes, Basil O'Conner Starter Scholar Research Award

1979-81 Fellow of the American Cancer Society

1973 Graduation with Honors from Rutgers University

1973 Phi Beta Kappa, Rutgers University

School of Medicine

2012 Charles W. Bolmfalk Teaching Prize, Yale University School of Medicine

School of Medicine, Departmental

2013 Academic Achievement and Departmental Citizenship award, Dept. of Surgery, Yale University

2012 Academic Achievement and Departmental Citizenship award, Dept. of Surgery, Yale University

2011 Academic Achievement and Departmental Citizenship award, Dept. of Surgery, Yale University

2010 Academic Achievement and Departmental Citizenship award, Dept. of Surgery, Yale University

2008 Academic Achievement and Departmental Citizenship award, Dept. of Surgery, Yale University

2007 Academic Achievement and Departmental Citizenship award, Dept. of Surgery, Yale University

Grant History at Yale (last 21 years):

Current Grants

Agency: Connecticut Stem Cell Fund

I.D.# 14-SCB-YALE-18

Title: "Reconstruction of an outer retina for transplantation and pharmaceutical testing"

P.I.: L. Rizzolo, Ph.D.

Percent Effort: 30%

Direct costs per year: \$137,550

Total costs for project period: \$550,000

Project period: 10/01/14 – 09/30/17

Agency: Department of Defense
I.D.# MR130036
Title: "Maturation and Implantation of Engineered Retinal Tissue Grafts"
P.I.: L. Rizzolo, Ph.D.
Percent Effort: 30%
Direct costs per year: \$201,125
Total costs for project period: \$999,998
Project period: 10/01/14 – 09/30/17, pending approval of animal protocols

Past Grants

Agency: Connecticut Stem Cell Fund
I.D.# 14-SCB-YALE-18
Title: "Co-Differentiation of hESC-Derived Retinal and Retinal pigment Epithelial Progenitors"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 40%
Total costs for project period: \$832,608
Project period: 10/01/10 – 06/30/14

Agency: International Retinal Research Foundation
I.D.# 14-SCB-YALE-18
Title: "Co-Differentiation of hESC-Derived Retinal and Retinal pigment Epithelial Progenitors"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 25%
Total costs for project period: \$100,000
Project period: 1/01/10 – 12/31/14

Agency: Jewish Community Foundation of Palm Beach, FL
I.D.#
Title: "Cell Biology of Retinal Disease"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 5%
Total costs for project period: \$500,000
Project period: 01/01/07 – 06/30/09

Agency: US Dept of Education
I.D.# P116B0311017
Title: "Anatomy Transformed: A Modular, Multimedia Approach to Teaching Anatomy from High School through Clinical Education"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 20%
Total costs for project period: \$395,293
Project period: 9/01/03 – 08/31/06

Agency: Donald W. Reynolds Foundation
I.D.#

Title: "Yale Program to Strengthen Physicians' Training in Geriatrics"
P.I.: M. Drickamer, M.D.
Role: Co-Investigator
Percent Effort: 20%
Total costs for project period: \$2,000,000
Project period: 07/01/03 – 08/31/06

Agency: National Eye Institute
I.D.# RO1 EY 08694
Title: "Apical Junctional Complexes of the RPE"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 40%
Total costs for project period: \$1,308,000
Project period: 03/01/03 – 02/28/07

Agency: Jewish Community Foundation of Palm Beach, FL
I.D.#
Title: "Cell Biology of Retinal Disease"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 5%
Total costs for project period: \$150,000
Project period: 7/01/01 – 06/30/03

Agency: National Eye Institute
I.D.# RO1 EY 08694
Title: "Polarity of the Retinal Pigment Epithelium"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 40%
Total costs for project period: \$661,734
Project period: 12/01/98 – 11/31/02

Agency: National Eye Institute
I.D.# RO1 EY 08694
Title: "Polarity of the Retinal Pigment Epithelium"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 40%
Total costs for project period: \$519,380
Project period: 12/01/95 – 11/31/98

Agency: National Science Foundation
I.D.# BIR-9216388
Title: "Acquisition of a Microtome"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 5%
Total costs for project period: \$18,325
Project period: 02/01/93 – 01/31/94

Agency: National Eye Institute
I.D.# RO1 EY 08694

Title: "Polarity of the Retinal Pigment Epithelium"
P.I.: L.J. Rizzolo, Ph.D.
Percent Effort: 40%
Total costs for project period: \$402,603
Project period: 07/01/91- – 06/30/95

Invited Speaking Engagements, Presentations, Symposia & Workshops Not Affiliated With Yale (Since joining Yale; last 21 years):

International

- 2015 Curriculum Reform: The tension between knowledge and wisdom. Peking Union Medical College, Beijing, China
- 2013 A journey of a thousand miles: Medical education reform at Yale, Peking Union Medical College, Beijing, China
- 2012 Symposium: "Anatomy Throughout the Curriculum: What to Teach and When" American Association of Clinical Anatomists Annual Meeting, Grenada, Invited Speaker
- 2012 Development of an Integrated Medical School Curriculum: A Case Study from the Anatomy Laboratory, Peking Union Medical College, Beijing, China
- 2012 Restoration of the Diseased Human Retina: Role of the Retinal Pigment Epithelium (RPE), Peking Union Medical College, Beijing, China
- 2007 Symposium: "Regulation of the outer blood-retinal barrier by tissue interactions", International Forum for Vitreoretinal Disease, Guanzhou, China, Invited Speaker
- 2006 "Tissue interactions that regulate tight junctions of the RPE", 1st International Conference for Ocular Cell Biology, Homerton College, Cambridge, UK, Invited Speaker
- 2002 Minisymposium on transplantation of the retina and retinal pigment epithelium; Assoc. for Research in Vision and Ophthalmology--Ft. Lauderdale, FL, Invited Speaker
- 2002 68th Mid-Japan Ophthalmological Society Annual Meeting. Osaka, Japan Keynote Speaker
- 2002 2nd Annual Meeting of the Heilongjiang Province Vitreoretinal Society, Harbin, China. Keynote Speaker
- 1998 Symposium on the "Development of the Cytoskeleton in Ocular Epithelia", XIII International Congress of Eye Research--Paris, France., Invited Speaker
- 1997 Symposium on Cell Junctions as Moderators of Intercellular Communication in Ocular Function and Development; "Reach out and touch someone: The diversity of cell-cell junctions", Assoc. for Research in Vision and Ophthalmology--Ft. Lauderdale, FL, Invited Organizer and Moderator
- 1995 Platform session: Unique Expression and Distribution of Proteins in the Retinal Pigment Epithelium; Assoc. for Research in Vision and Ophthalmology--Ft. Lauderdale, FL, Invited Moderator
- 1994 XI International Congress of Eye Research--New Delhi, India. Symposium on The Cell

Biology of the Retinal Pigment Epithelium, Invited Speaker

- 1992 Retinal Pigment Epithelium, session II; Assoc. for Research in Vision and Ophthalmology, Sarasota, FL, Invited Moderator
- 1991 Platform session: Growth Factors in PVR - RPE Cell Biology, International Symposium on Research in Proliferative Vitro-Retinal Disease--Key West, FL Invited Moderator
- 1991 International Symposium on Research in Proliferative Vitro-Retinal Disease--Key West, FL. "A Developmental Approach to Understanding RPE Polarity", Invited Speaker
- 1984 Soviet-American Diabetes Clinical Study--Leningrad-Sochi-Moscow, USSR; conducted by Professional Seminar Consultants. "The Life and Travels of the Insulin Receptor", Invited Speaker

National (Since joining Yale; last 21 years)

- 2013 Neural Stem Cell Research Institute: "Autophagy and AMD: A stem cell approach"
- 2010 Education Breakfast Round Table: "Using Assessments to Energize Your Innovation", American Association of Anatomists, Annual Meeting, Anaheim, CA, Invited Speaker
- 2010 Refresher Course: "Surface Anatomy-The Foundation of Physical Assessment", American Association of Anatomists, Annual Meeting, Anaheim, CA, Invited Speaker
- 2009 Anatomy of an Innovation: How multifaceted assessments guided the development of a shortened, yet effective, anatomy course, Wisconsin Medical School
- 2009 Regulation of the subretinal space: Do tight junctions of the RPE play a dynamic role? Wisconsin Medical School
- 2008 Tissue interactions regulate the assembly and function of the outer blood-retinal barrier, National Eye Institute
- 2008 Of microarrays and culture models: Can RPE development be studied in vitro? National Institute of Diabetes and Digestive and Kidney Diseases
- 2006 "Adapting anatomy instruction to the needs of your students." Human Anatomy and Physiology Society, Austin TX, Invited Speaker
- 2005 Mini-Workshop: Integrated Model of Aging and Geriatric Education in a Medical School Curriculum. "Integrating the Curriculum: Is leading institutional change compatible with life?" Association of American Medical Colleges. Washington, DC, Invited faculty member
- 2007 Workshop: "Survival Tech: Tools for Mastering Curricular Change in Anatomy", American Association of Anatomists, Annual Meeting, Washington, D.C., Invited Speaker
- 2007 Symposium "Walk-Jog-Run: Whatever Swings Your Gait", American Association of Anatomists, Annual Meeting, Washington, D.C., Invited Speaker
- 2006 Workshop on accreditation of Anatomy Programs. American Association of Anatomists. San Francisco, CA, Invited Organizer and Facilitator
- 2006 Symposium on Anatomy Education: "Learning societies that integrate the goals of professionalism and anatomy" American Association of Anatomists. San Francisco, CA, Symposium, Invited Organizer and Speaker
- 2005 Symposium on Anatomy Education: "Teach Now or Pay Later" American Association

- of Anatomists. San Diego, CA, Invited Speaker
- 2003 Symposium on Teaching Anatomy in the Modern Medical School Environment; American Association of Anatomists. "Reasoning in three dimensions: a problem solving approach to help students decide what is important." Invited Organizer and Speaker
- 1989 Cell Biology of Vision--Cullen Eye Institute, Baylor College of Medicine, Houston, TX. "Distribution of Na⁺/K⁺ ATPase in chick embryo RPE's polarized in vivo, but not in primary culture", Invited Speaker
- 1987 Biophysical Society Annual Meeting--New Orleans, LA "Molecular Biological Approaches to Intracellular Sorting", Invited Speaker

Regional

- 2012 Invited Speaker, Symposium: "Connecticut Tri-institutional Stem Cell Retreat" Wesleyan University, Middletown Connecticut.

Peer-Reviewed Presentations & Symposia Given at Meetings Not Affiliated with Yale (Since last review)

- 2014 Davis, K, Pakneshan, S, Zhao, P, Kefella, H, Adelman, RA, **Rizzolo, LJ**. Autophagy over the lifespan: using fetal, stem cell, and adult RPE cultures to model the pathogenesis of AMD. Invest Ophthalmol Vis Sci; 55: E-Abstract 371
- 2014 Peng, S, Zhao, P, Adelman, RA, **Rizzolo, LJ**. The expression of claudin-3 and claudin-19 regulates cell proliferation and wound-healing in a culture model of the retinal pigment epithelium. Role of claudin-19 and claudin-3 on the barrier function of human retinal pigment epithelium (RPE). Invest Ophthalmol Vis Sci ; 55: E-Abstract 2964
- 2014 Zhao, P, Peng, S, Ediriwickrema, LS, Qiu, C, Davis, K, Adelman, RA, **Rizzolo, LJ**. Co-culture of stem cell derived retinal progenitors and retinal pigment epithelium promotes tissue maturity. Invest Ophthalmol Vis Sci ; 55: E-Abstract 3995
- 2013 Kefella, H, Pakneshan, S, Van Zyl, T, Adelman, RA, **Rizzolo, LJ**. Comparison of autophagy in hRPE and ARPE-19 as two different models to study the pathogenesis of AMD. Invest Ophthalmol Vis Sci ; 54: E-Abstract 1380
- 2012 Ediriwickrema, LS, Peng, S, Kristofik, N, Van Zyl, T, Gan, G, Li, L, Qiu, C, W. Saltzman, WM, Adelman, RA, **Rizzolo, LJ**. Reconstructing an Outer Retina Using Electrospun Polycaprolactone (PCL) Polymer and hESC-derived Retinal Progenitor Cells. Invest Ophthalmol Vis Sci 2012;53: E-Abstract 337
- 2012 Van Zyl, T, Ferguson, SM, Ediriwickrema, LS, Li, L, Adelman, RA, **Rizzolo, LJ**. Human Embryonic Stem Cell (hESC)-derived Retinal Pigment Epithelium (RPE) as a Model to Screen Agents that Induce Autophagy. Invest Ophthalmol Vis Sci 53: E-Abstract 1125.
- 2012 **Rizzolo, LJ**, Gan, G, Peng, S, Van Zyl, T, Ediriwickrema, LS, An, H, Zhong, M, Qiu, Q, Adelman, RA Transcriptomic Comparison of RPE Derived from Two Human Embryonic Stem Cell Lines with Human Fetal RPE. Invest Ophthalmol Vis Sci 53: E-Abstract 5912.
- 2012 Peng, S, Gan, G, Qiu, Q, Li, L, Adelman, RA, **Rizzolo, LJ**. Comparison of Barrier Properties of RPE Derived from Two Human Embryonic Stem Cell Lines to the Properties of Human Fetal RPE Invest Ophthalmol Vis Sci 53: E-Abstract 5923.
- 2011 Gan, G, Peng, S, Rao, V.S., Adelman, RA, **Rizzolo, LJ**. Synergistic Action of TNF α and IFN γ on the Tight Junctions of the Human Retinal Pigment Epithelium Invest

- Ophthalmol Vis Sci 52: E-Abstract 417
- 2011 Peng, S, Qiu, Q, Li, L, Adelman, RA, **Rizzolo, LJ**. Tight Junctions of RPE Derived from Human Embryonic Stem Cells Invest Ophthalmol Vis Sci 52: E-Abstract 5923.
- 2010 Rao, V.S.: Peng, S: Adelman, RA: **Rizzolo, LJ**. Effects of Ectopic Serum on the Barrier Properties of the Retinal Pigment Epithelium Invest Ophthalmol Vis Sci 51: E-Abstract 2790.
- 2010 Peng, S: Rao, V.S.: Adelman, RA: **Rizzolo, LJ**. Effects of TNF α and IL-1 β on the Tight Junctions of Human Fetal RPE Invest Ophthalmol Vis Sci 51: E-Abstract 2237.

Professional Service:

Peer Review Groups/Grant Study Sections:

- Fight for Sight, The Research Division of Prevent Blindness America: 1995-1997
- National Science Foundation, Ad hoc reviewer: 1994
- National Science Foundation, STEM review panel: 2010
- National Institutes of Health, Visual Sciences C, Ad hoc reviewer: 1996-1999
- National Institutes of Health, Visual Sciences C, 1999-2003
- National Institutes of Health, Visual Sciences B, Special review panel, 1996
- Medical Research Council (Great Britain), Ad hoc reviewer: 1998, 2000, 2001, 2003, 2004
- National Institutes of Health, Special emphasis review panel: 2005, 2006
- Williams Wilkins/American Association of Anatomists Education Research Scholarship Committee: 2007-11 (Chair 2009-11)
- Academy of Finland, Ad hoc reviewer: 2010
- Oak Ridge Associated Universities final performance reviews on behalf of the Pennsylvania Department of Health, 2014

Journal Service:

Editorial Boards:

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|--------------|--|
| 2007-2012 | Journal of Ocular Biology, Diseases, and Informatics |
| 2007-present | Anatomical Sciences Education |
| 1999-2002 | Investigative Ophthalmology and Visual Science, Guest member |
| 1995-present | Molecular Vision |

Reviewer

From 1986: Academic Medicine, Anatomical Sciences Education, Biochemistry and molecular biology international, British Journal of Ophthalmology, Clinical Anatomy, Current Eye Research, Experimental Eye Research, FASEB, Investigative Ophthalmology and Visual Science, Journal of Biochemistry, Journal of Cell Biology, Journal of Cell Science, Molecular Vision, Proceedings of the National Academy of Sciences, Visual Neuroscience.

Professional Service for Professional Organizations:

American Association of Anatomists

- 2007-2012 Liaison to the Anatomical Society of Great Britain and Ireland
- 2003-2006 Member, Education Committee

Meeting Planning/Participation

Association for Research in Vision and Ophthalmology

1994-1997 Member, Program Planning Committee:
Chairman, Retinal Cell Biology Subcommittee: 1996-1997

Yale University Service

Medical School Committees

2014-present Chair, Embryology Theme Committee; Curriculum Redesign Project
2014-present Chair, Anatomy Longitudinal Course Committee; Curriculum Redesign Project
2014-Present Master Course Design and Implementation Committee
2012-Present Clerkship Review Committee
2007-present Curriculum Committee, School of Medicine (Elected representative of the Course Directors)
2006-present Preclinical Course and Module Directors' committee
2002-2006 Preclinical Course Directors Committee
2002-2004 Chair, Attitudes curriculum working group
2002-2004 Assessment of Clinical Clerkships curriculum working group
2002-2004 Curriculum Design Subcommittee
1997-2002 End-of-Life-Curriculum Implementation Group
1999 Chair, End-of-Life-Curriculum Implementation Group
1995-2002 Basic Sciences Curriculum Subcommittee
1998-2000 Anatomy Committee, Congress Avenue Building Project

Department of Surgery

1996-present Director of Medical Studies (Anatomy)

Public Service

National Talks to Lay Audiences about Science

2010 Contemporary Issues Forum "Demystifying Stem Cells" Chautauqua Institution, Chautauqua, New York.

Chautauqua Scientific Circle, Chautauqua Institution, Chautauqua, New York.

2012 "The Aging Eye: Are stem cells the answer"
2010 "The Cell Biology of Cancer: When good cells go bad"
2010 "Functional Anatomy of the Limbs"
2009 "What Are Stem Cells and Why Should We Care?"
2008 "The Aging Eye"

Regional Talks to Lay Audiences about Stem Cell Biology and Ethics

2014 TriBeta National Biological Honors Society, University of Saint Joseph, Hartford, CT
2013 Schiller Shoreline Institute for Lifelong Learning, Gilford Community Center, Gilford, CT
2011-2014 Biology Course, Naugatuck Community College
2012 Osher Lifelong Learning Institute, University of Connecticut, Waterbury, CT
2012 Tildecafe, James Blackstone Memorial Library, Branford, CT
2012 Saint Paul's Episcopal Church, Cheshire CT
2012 Science Seminar Series, Albertus Magnus College

Bibliography:**Peer-Reviewed Original Research**

1. **Rizzolo, L.J.**, le Maire, M., Reynolds, J.A., and Tanford, C. Molecular weights and hydrophobicity of the polypeptide chain of sarcoplasmic reticulum CA(II) ATPase and of its primary tryptic fragments. 1976 *Biochemistry*, 15:3433-3437.
2. **Rizzolo, L.J.** and Tanford, C. Behavior of fragmented calcium(II) adenosine triphosphatase from sarcoplasmic reticulum in detergent solution. *Biochemistry* 1978, 17: 4044-4048.
3. **Rizzolo, L.J.** and Tanford, C. Denaturation of the tryptic fragments of calcium(II) adenosine triphosphatase from sarcoplasmic reticulum by guanidinium hydrochloride. *Biochemistry* 1978, 17:4049-4055.
4. **Rizzolo, L.J.** Kinetics and protein sub-unit interactions of phosphatidylserine decarboxylase in detergent solution. *Biochemistry* 1981, 20: 868-873.
5. **Rizzolo, L.J.**, Finidori, J., Gonzalez, A., Arpin, M., Ivanov, I.E., Adesnik, M., and Sabatini, D.D. Biosynthesis and intracellular sorting of growth hormone viral envelope glycoproteins hybrids. *J. Cell. Biol.* 1985, 101:1351-1362.
6. Gottlieb, T., Gonzalez, A., **Rizzolo, L.J.**, Rindler, M.J., Adesnik, M., and Sabatini, D.D. Sorting and endocytosis of viral glycoproteins in transfected polarized epithelial cells. *J. Cell Biol.* 1986, 102:1241-1255.
7. Gottlieb, T.A., Beaudry, G., **Rizzolo, L.J.**, Colman, A., Rindler, M.J., Adesnik, M., and Sabatini, D.D. Secretion of endogenous and exogenous proteins from polarized MDCK monolayers. *Proc. Natl. Acad. Sci. USA* 1986, 83:2100-2104.
8. Finidori, J., **Rizzolo, L.**, Gonzalez, A., Kreibich, G., Adesnick, M., and Sabatini, D.D. The influenza hemagglutinin insertion signal is not cleaved and does not halt translocation when presented to the ER membrane as part of a translocating polypeptide. *J. Cell Biol.* 1987, 104:1705-1714.
9. Gonzalez, A., **Rizzolo, L.**, Rindler, M., Adesnik, M., Sabatini, D.D., and Gottlieb, T. Nonpolarized secretion of truncated forms of influenza hemagglutinin and VSV G protein from MDCK. *Proc. Natl. Acad. Sci. USA* 1987, 84:3738-3742.
10. **Rizzolo, L.J.** and Kornfeld, R. Posttranslational protein modification in the endoplasmic reticulum: Demonstration of fatty acylase and deoxymannojirimycin-sensitive α -mannosidase activities. *J. Biol. Chem.* 1988, 263:9520-9525.
11. **Rizzolo, L.J.** A growth hormone-vesicular stomatitis virus G hybrid protein is rapidly degraded in lysosomes following transport to the cell surface. *Eur. J. Cell Biol.* 1989, 49: 92-98.
12. **Rizzolo, L.J.** The distribution of Na⁺K⁺ ATPase in the retinal pigmented epithelium from chicken embryo is polarized *in vivo*, but not in primary cell culture. *Exp. Eye Res.* 1990, 51:435-446.
13. **Rizzolo, L.J.** and Heiges, M. The polarity of the retinal pigment epithelium is developmentally regulated. *Exp. Eye Res.* 1991, 53:549-553.
14. **Rizzolo, L.J.** Basement membrane stimulates the polarized distribution of integrins but not the Na,K-ATPase in the retinal pigment epithelium. *Cell Regulation* 1991, 2: 939-949.
15. **Rizzolo, L.J.** and Joshi, H. Apical orientation of the microtubule organizing center and associated γ -tubulin during the polarization of the retinal pigment epithelium *in vivo*. *Dev Biol.* 1993, 157:147-156.
16. **Rizzolo, L.J.** and Li, Z.-Q. Diffusible, Retinal Factors Stimulate the Barrier Properties of Junctional Complexes in the Retinal Pigment Epithelium. *J. Cell Science* 1993, 106:859-867.

17. **Rizzolo, L.J.**, Zhou, S. and Li, Z.-Q. The neural retina maintains integrins in the apical membrane of the retinal pigment epithelium early in development. *Invest. Ophthalmol. Vis. Sci.* 1994, 35:2567-2576.
18. **Rizzolo, L.J.**, and Zhou, S. The distribution of Na⁺,K⁺-ATPase and 5A11 antigen in apical microvilli of the retinal pigment epithelium is unrelated to α -spectrin. *J. Cell Science* 1995, 108:3623-3633.
19. Williams, C.D., and **Rizzolo, L.J.** Remodeling of junctional complexes during the development of the outer blood-retinal barrier. *Anat. Rec.* 1997, 249:380-388.
20. Ban, Y., and **Rizzolo, L.J.** A culture model of development reveals multiple properties of RPE tight junctions. *Mol Vis.* 1997, 3:18 <<http://www.molvis.org/v3/p18/>>
21. Collins, J.R., and **Rizzolo, L.J.** Protein-binding domains of the tight junction protein, ZO-2, are highly conserved between avian and mammalian species. *Bioch. Biophys. Res. Comm.* 1998, 252:617-622.
22. Ban, Y., Wilt, S.D., and **Rizzolo, L.J.** Two secreted retinal factors regulate different stages of development of the outer blood-retinal barrier. *Brain Res. Dev. Brain Res.* 2000, 119:259-267.
23. Ban, Y., and **Rizzolo, L.J.** Regulation of glucose transporters during development of the retinal pigment epithelium. *Brain Res. Dev. Brain Res.* 2000, 121:89-95.
24. Ban, Y., and **Rizzolo, L.J.** Differential regulation of tight junction permeability during development of the retinal pigment epithelium. *Am. J. Physiol.* 2000, 279: C744-C750.
25. Bumsted, K.M., **Rizzolo, L.J.**, and Barnstable, C.J. Photoreceptor Outer Segment Development is Interrupted in the mi/mi Mouse: Influence of an Abnormal Retina Pigment Epithelium. *Exp Eye Res.* 2000, 73:383-392.
26. Kojima, S., Rahner, C., Peng, S., and **Rizzolo, L.J.** Claudin 5 is transiently expressed during the development of the retinal pigment epithelium. *J Membr. Biol.* 2002, 15:186:81-88
27. **Rizzolo, L.J.**, Aden, M. and Stewart, W.B. Correlation of Web Usage and Exam Performance in a Human Anatomy and Development Course. *Clin. Anat.* 2002, 15:351-355.
28. **Rizzolo, L.J.** Human Dissection: An approach to interweaving the traditional and humanistic goals of medical education. *Anat Rec. (New Anat.)* 2002, 269:242-248
29. Peng S, Rahner C and **Rizzolo LJ.** Apical and basal regulation of the permeability of the retinal pigment epithelium. *Invest. Ophthalmol. Vis. Sci.* 2003, 44:808-817.
30. Rahner C, Fukuhara M., Peng S., Kojima S. and **Rizzolo LJ** The apical and basal environments of the retinal pigment epithelium regulate the formation of tight junctions during development. *J. Cell Science*, 2004, 117:3307-3318.
31. **Rizzolo, L.J.**, Stewart W.B., O'Brien, M, Haims, A, Rando, W., Abrahams J, Dunne, S, Wang, S. and Aden, M. Design principles for developing an efficient clinical anatomy course. *Medical Teacher*, 2006, 28:142-151.
32. Warner, J.H., and **Rizzolo, L.J.** Anatomical Instruction and Training for Professionalism from the 19th to the 21st Centuries. *Clin. Anat.*, 2006, 19:403-414.
33. Luo, Y., Zhuo, Y., Fukuhara, M., and **Rizzolo, L.J.** Effects of culture conditions on heterogeneity and the apical junctional complex of the ARPE-19 cell line. *Invest. Ophthalmol. Vis. Sci.*, 2006, 47:3644-3655.
34. Luo, Y., Fukuhara, M., Weitzman, M., and **Rizzolo, L.J.** Expression of JAM-A, AF-6, PAR-3 and PAR-6 during the assembly and remodeling of RPE tight junctions. *Brain Research*, 2006, 1110:55-63
35. **Rizzolo, L.J.** and Stewart, W.B., Should we continue teaching anatomy by dissection when...? *Anat Rec. (Part B: New Anat.)* 2006, 289B:215-218.

36. **Rizzolo, L.J.**, Chen, X., Weitzman, M., Sun, R. and Zhang, H. Analysis of the RPE transcriptome reveals dynamic changes during the development of the outer blood-retinal barrier. *Mol. Vis.* 2007, 13:1259-1273
37. **Rizzolo, L.J.** and Drake, R.L. Anatomists debate the value of a teaching credential. *Anatomical Sciences Education* 2008, 1:60-67
38. Cong, L., Sun, D., Zhang, Z., Jiao, W., **Rizzolo, L.J.**, Peng S. A novel rabbit model for studying RPE transplantation. *Invest. Ophthalmol. Vis. Sci.* 2008, 49:4115-4125.
39. Sun R., Peng, S., Chen X., Zhang H. and **Rizzolo L.J.** Diffusible retinal secretions regulate the expression of tight junctions and other diverse functions of the retinal pigment epithelium. *Mol. Vis.* 2008, 14:2237-2262.
40. Elansary, M., Goldberg, B., Qian, T. and **Rizzolo, L.J.** The 2008 anatomy ceremony: essays. *Yale J. Biol. Med.* 2009, 82:37-40.
41. Peng S., Adelman R., and **Rizzolo L.J.** VEGF and Anti-VEGF drugs have minimal effects on the permeability or selectivity of RPE tight junctions. *Invest. Ophthalmol. Vis. Sci.:* 2010, 51:3216-3225
42. **Rizzolo, L.J.**, Rando, W.C., O'Brien, M.K., Haims, A.H., Abrahams J.J., and Stewart W.B. Design, implementation, and evaluation of an innovative anatomy course. *Anat. Sci. Ed.* 2010, 3:109-120
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