

Curriculum Vitae for Academic Promotion

Pradeep Y. Ramulu, M.D., M.H.S., Ph.D.

March 26th, 2011

DEMOGRAPHIC AND PERSONAL INFORMATION

CURRENT APPOINTMENT

Assistant Professor, Johns Hopkins University

PERSONAL DATA

Address: Johns Hopkins Hospital, Maumenee B110
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EDUCATION AND TRAINING

1990-1994 **Stanford University,**
B.S. in Chemistry with University and Departmental High Honors.

1994-2002 **Johns Hopkins University School of Medicine**
M.D. and Ph.D. in Molecular Biology and Genetics

2002-2003 **Mercy Hospital of Maryland**
Internship, Internal Medicine.

2003-2006 **Wilmer Ophthalmological Institute, Johns Hopkins Hospital**
Residency, Ophthalmology.

2006-2007 **Bascom-Palmer Eye Institute, University of Miami**
Fellowship, Glaucoma

2007-2009 **Johns Hopkins School of Public Health**
MHS, Graduate Training Program in Clinical Investigation

PROFESSIONAL EXPERIENCE

July 2007-present **Assistant Professor of Ophthalmology, Glaucoma Division**
Johns Hopkins School of Medicine

RESEARCH ACTIVITIES

PUBLICATIONS

1. **Ramulu P**, Kennedy M, Xiong WH, Williams J, Cowan M, Blesh D, Yau KW, Hurley JB, Nathans J. Normal light response, photoreceptor integrity, and rhodopsin dephosphorylation in mice lacking protein phosphatases with EF hands (PPEF-1 and PPEF-2). *Mol Cell Biol*. 2001 Dec;21(24):8605-14.
2. **Ramulu P**, Nathans J. Cellular and subcellular localization, N-terminal acylation, and calcium binding of Caenorhabditis protein phosphatase with EF-hands. *J Biol Chem*. 2001 Jul 6;276(27):25127-35.
3. **Ramulu P**, Corcoran KJ, Corcoran SL, Robin AL. Utilization of various glaucoma surgeries and procedures in Medicare Beneficiaries from 1995 to 2004. *Ophthalmology*. 2007 December;114(12):2265-70.
4. **Ramulu PY**, West SK, Munoz B, Jampel HD, Friedman DS. Glaucoma and Reading Ability: The Salisbury Eye Evaluation Project. *Archives Ophthalmol*. 2009 Jan;127(1):82-7.
5. Quigley HA, Silver DM, Friedman DS, He M, Jasti S, Plyler RJ, Jampel HD, **Ramulu PY**. Iris Cross-Sectional Area Decreases With Pupil Dilation and Its Dynamic Behavior Is a Risk Factor in Angle Closure. *J Glaucoma*. 2009 Mar;18(2):173-9.
6. **Ramulu PY**, West SK, Munoz B, Jampel HD, Friedman DS. Driving Cessation and Driving Limitation in Glaucoma: The Salisbury Eye Evaluation Project. *Ophthalmology*. 2009 Oct;116(10):1846-53.
7. **Ramulu PY**, Do DV, Corcoran KJ, Corcoran SL, Robin AL. Utilization of Retinal Procedures in Medicare Beneficiaries from 1997 to 2007. *Arch Ophthalmol*. 2010 Oct;128(10):1335-40.
8. Maul EA, Friedman DS, Chang DS, Boland MV, **Ramulu PY**, Jampel HD, Quigley HA. Macular and Peripapillary Choroidal Thickness Measurements with Spectral Domain Optical Coherence Tomography: Methods and Factors Affecting Thickness in Glaucoma Patients. *Ophthalmology*. In Press.
9. Mwanza JC, Hochberg JT, Budenz DL, Chang RT, Feuer WJ, **Ramulu PY**. Combining Frequency Doubling Technology Perimetry and Scanning Laser Polarimetry with Variable Corneal Compensation for Glaucoma Detection. Submitted for publication November 2010.

10. **Ramulu PY**, Chan ES, Loyd TL, Ferrucci L, Friedman DS. Comparison of home and away-from-home physical activity using accelerometers and cellular network based tracking devices. Submitted for publication December 2010.
11. Solus J, Nix C, Gedde SJ, **Ramulu PY**. Comparison of resident and glaucoma faculty practice patterns in the care of open-angle glaucoma. Submitted for publication March 2010.

INVENTIONS, PATENTS, COPYRIGHTS

November 2010 **Copyright pending.** “A test to measure sustained reading – text and questions.” **Ramulu PY**.

EXTRAMURAL FUNDING

July 2007 – August 2009	Blindness from glaucoma in the twenty-first century - Why is it still happening? K12 EY015025 NEI PI – Harry A. Quigley, M.D. Support at 90% Effort Role: Mentored Clinician Scientist
June 2008 – June 2009	Reading Impairment in Subjects with Bilateral Glaucoma The Glaucoma Research Foundation PI – Pradeep Y. Ramulu, MD PhD Total direct costs: \$40,000
July 2008 – June 2009	American Glaucoma Society MAPS Award PI – Pradeep Y. Ramulu, MD PhD Total Direct Costs: \$5,000
July 2009 – June 2011	Real-world mobility in glaucoma and macular degeneration American Geriatrics Society / Jahnigen Award PI – Pradeep Y. Ramulu, MD MHS PhD Total direct costs: \$150,000 (+ \$50,000 insitutional match)
Sept 2009 – August 2013	Direct Evaluation of Functional Impairment in Glaucoma K23 EY018595 NEI PI – Pradeep Y. Ramulu MD MHS PhD Total Direct Costs: \$816,496
Jan 2010 – Jan 2011	Risk Factors for Angle Closure Glaucoma Wilmer Grant supported by Morton F. Goldberg Discovery Fund and Research to Prevent Blindness Challenge Grant PI – Pradeep Y Ramulu MD MHS PhD Total Direct Costs: \$50,000

June 2010 – August 2010 Risk Factors for Angle Closure Glaucoma
 Fight for Sight Student Grant
 Recipient – Emilie Chan M.S
 Role : Mentor
 Total Direct Costs : \$2,100

EDUCATIONAL ACTIVITIES

EDUCATIONAL PUBLICATIONS – INVITED/SUBMITTED REVIEW ARTICLES

- 2008 **Ramulu PY**, Parrish RK. III. Asking the right question in laser trabeculoplasty: “Which patient?” not “Which laser?”. *Surveys of Ophthalmology*. 2008 Nov;53(6):652-4.
- 2009 **Ramulu, PY**. Glaucoma and Disability: Which tasks are affected, and at what stage of disease? *Curr Opin Ophthalmol*. 2009 Mar;20(2):92-8.
- 2009 **Ramulu PY**. Glaucoma’s Impact: Risk Versus Benefit. *Reviews in Ophthalmology*. 2009 Oct;16(10).

EDUCATIONAL PUBLICATIONS – CASE REPORTS

- 2002 **Ramulu P**, Moghekar A, Chaudry V, Zee D, and Reich S. Wernicke’s Encephalopathy. *Neurology*. 2002 Sep 24;59(6):846.
- 2004 **Ramulu P**, Jun A. Cyclodialysis Cleft After Trauma. *EyeNet*. 2004 Sep.
- 2007 **Ramulu P**, Green WR, Iliff NT, Kuo IC. Asymptomatic Conjunctival Mucosa-Associated Lymphoid Tissue-Type Lymphoma with Presumed Intraocular Involvement. *Cornea*. 2007 May;26(4):484-6.

EDUCATIONAL PUBLICATIONS – BOOK CHAPTERS

- 2007 **Ramulu P**, Friedman DF. Laser Iridotomy. In: *Angle Closure Glaucoma*, ed. Hung C, and Yamamoto T. Kugler Publications, p. 201-216, 2007.
- 2008 **Ramulu P**, Friedman DF. Epidemiology of Glaucoma. In: *Ophthalmology*, 3rd edition, ed. Yanoff M, and Duker JS. Mosby Publications, p. 1095-1101, 2008.
- 2009 **Ramulu PY**, Gedde SJ. Aqueous Misdirection. In *Glaucoma, Vol. 2 Surgical Management*, 1st edition, ed. Shaarawy T, Sherwood MB, Hitchings R, and Crowston JG. Elsevier Health Sciences, p. 211-221, 2009.
- 2009 **Ramulu PY**. Trabeculotomy. In: *Basic Techniques of Ophthalmic Surgery*, ed. Dunn JP, and Langer PD. American Academy of Ophthalmology, p. 173-177, 2009.

2010 **Ramulu PY.** When and how does glaucoma produce visual disability. In: Memorial to Dr. Venkataswamy. In press.

TEACHING – CLASSROOM INSTRUCTION

1998 **Instructor**
Served as section leader for 6 weeks of daily small-group discussion of 12 first year medical students taking the Molecules and Cells course.

1997, 1998 **Teaching Assistant**
Served as teaching assistant for daily small group discussions for first year medical students taking the 4 week Developmental Biology course.

Feb 2008 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Glaucoma Drainage Implants.”

March 2008 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Pediatric Glaucoma.”

June 2008 **Medical Student Lecture, Wilmer Eye Institute, Baltimore, MD.** Glaucoma Lecture for Ophthalmology Clerkship.

September 2008 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Secondary Glaucomas.”

September 2008 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Pediatric Glaucomas.”

September 2008 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Glaucoma Drainage Implants and Cyclodestructive Procedures.”

January 2009 **Preceptor, Ophthalmology Team Based Learning Exercise, Year 1 Anatomy Course**

January 2009 **Case Development, Angle Closure Glaucoma Case, Team Based Learning Exercise, Year 1 Anatomy Course.**

September 2009 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Secondary Glaucomas.”

October 2009 **Case Development, Angle Closure Glaucoma Case, Team Based Learning Exercise, Year 1 Anatomy Course.**

February 2010 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Pediatric Glaucoma Jeopardy.”

- February 2010 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Glaucoma Drainage Implants and Cyclodestructive Procedures.”
- May 2010 **Medical Student Lecture, Neuroscience and Special Senses Course, Johns Hopkins School of Medicine, Baltimore MD.** “Ocular Hydrodynamics and Glaucoma.”
- May 2010 **Medical Student Team-Based Learning Session, Neuroscience and Special Senses Course, Johns Hopkins School of Medicine, Baltimore MD.** “Glaucoma and Pupil Pharmacology”.
- September 2010 **Resident Lecture, Wilmer Eye Institute, Baltimore, MD.** “Secondary Glaucoma Jeopardy.”
- October 2010 **Preceptor, Ophthalmology Team Based Learning Exercise, Year 1 Anatomy Course**
- November 2010 **Case grader, Comprehensive Clinical Skills Examination Questions, Johns Hopkins School of Medicine, Baltimore MD.**

TEACHING – CME INSTRUCTION

- April 2004 **Talk, Annual Wilmer Research Meeting, Baltimore, MD.** “Biochemical and genetic analyses of the rod photoreceptor phosphatases PPEF-1 and PPEF-2.”
- May 2004 **Talk, Wilmer Residency Association Annual Meeting, Baltimore, MD.** “Biochemistry and Genetic analysis of the rod photoreceptor phosphatases PPEF-1 and PPEF-2.”
- April 2005 **Talk, Wilmer Residency Association Annual Meeting, Baltimore, MD.** “Laser Trabeculoplasty vs. IOP Lowering Drops: Which is More Costly to Patients? Which is More Costly to Society?”
- May 2006 **Talk, Wilmer Residency Association Annual Meeting, Baltimore, MD.** “A Therapeutic Intervention to Increase Compliance with Follow-up Visits in a Residents’ Clinic.”
- December 2007 **Talk, Current Concepts Meeting, Baltimore MD.** “Glaucoma Smackdown”.
- May 2008 **Lecture, Maryland Society of Eye Physicians and Surgeons, Baltimore, MD.** “When and How Glaucoma Produces Disability.”
- December 2008 **Talk, Current Concepts Meeting, Baltimore MD.** “Glaucoma Smackdown”.
- April 2009 **Talk, Annual Wilmer Research Meeting, Baltimore, MD.**

“Driving Cessation and Driving Limitation in Glaucoma: The Salisbury Eye Evaluation Project.”

December 2009 **Talk, Current Concepts Meeting, Baltimore MD.** “Glaucoma Smackdown”.

TEACHING – LEADERSHIP AND ORGANIZATION

April 2010 **Co-director and meeting organizer**, “Pathways to Leadership in Ophthalmology Advanced Preceptorship Program”, Wilmer Eye Institute, Johns Hopkins, in collaboration with Korean Ophthalmological Society

May 2010 **Co-director of Ophthalmology Block**, Revised Johns Hopkins School of Medicine 1st year Medical Student Neuroscience and Special Senses Course

May 2010 **Team leader and content creator**, “Glaucoma and Pupil Pharmacology Workshop” for 1st year Medical Students, Johns Hopkins University School of Medicine, Baltimore MD.

September 2010 **Developer, Glaucoma Mock Orals Module.** Given to residents rotating through the Wilmer Eye Institute Glaucoma Rotation. Mock oral exam administered to 2 residents to date.

March 2011 **Developer, New Glaucoma Didactic Format.** Developed and implemented new format for teaching visual field analysis, optic nerve assessment, and management of glaucoma care to residents in training.

CLINICAL ACTIVITIES

CERTIFICATION

March 2007 **Maryland Medical Licensure**
License Number D0065761

July 2008 **Certification, American Board of Ophthalmology**

ORGANIZATIONAL ACTIVITIES

INTERNAL COMMITTEE WORK

August 2010 – Present Serving on **Wilmer Research Advisory Committee** chaired by Sheila West, PhD

October 2010 – Present To serve on **East Baltimore Clinical Practice Redesign Work Group** headed by Dr. Michael Repka.

EXTERNAL COMMITTEE WORK

September 2008 – Present **American National Standards Institute (ANSI) Z80 Committee for Implantable Glaucoma Devices.**
American Academy of Ophthalmology Representative

- October 2010 – Present **American Academy of Ophthalmology Committee on Research and Regulatory Affairs.** Active Member.
- November 2010 – Present Member, **Food and Drug Administration (FDA) Ophthalmic Devices Panel.**

EDITORIAL ACTIVITIES

- 2010 **Reviewer**
VISION RESEARCH
- 2009 **Reviewer**
OPHTHALMIC EPIDEMIOLOGY
- 2009 **Reviewer**
AMERICAN JOURNAL OF OPHTHALMOLOGY
- 2009 **Reviewer**
DRUGS AND AGING
- 2008 – Present **Reviewer**
ARCHIVES OF OPHTHALMOLOGY, Daniel M. Albert editor in chief
- 2007-Present **Reviewer**
OPHTHALMIC SURGERY, LASERS, AND IMAGING, Carmen Puliafito editor in chief
- 2006-Present **Reviewer**
OPHTHALMOLOGY, Andrew Shachat editor in chief
- 1996-2002 **Editorial Assistant**
MEDICINE, Victor A. McKusick editor in chief

PROFESSIONAL SOCIETIES

- 2003-Present **American Academy of Ophthalmology**
- 2002-Present **Association for Research and Vision in Ophthalmology (ARVO)**
- 2007-Present **American Glaucoma Society**
- 2008-Present **American Geriatrics Society**
- 2009-Present **Maryland Society of Eye Physicians and Surgeons**

RECOGNITION

AWARDS & HONORS

- 2009 **Dennis W. Jahnigen Scholar**
- 2008 **American Glaucoma Society Career Development Award**
- 2008 **Secretariat Award, American Academy of Ophthalmology**
- 2006 **Heed Fellowship in Ophthalmology**
- 2006 **Outstanding Senior Resident, Wilmer Eye Institute / Greater Baltimore Medical Center**

- 2005 **Harry A. Quigley Research Grant, Wilmer Eye Institute**
- 1997 **Visual Neurosciences Training Program Fellowship, Johns Hopkins School of Medicine**
- 1994 **Outstanding Senior of the Year, Department of Chemistry, Stanford University**
- 1993 **Analytical Chemist of the Year, Stanford University**
- 1990 **President's Award for Academic Excellence, Stanford University**
- 1990 **Salutatorian, Highland Park High School, Highland Park, IL**

INVITED TALKS

- October 2008 **Visiting Professor, Moorfield's Eye Hospital, London, England.** "When and How Glaucoma Produces Disability."
- December 2008 **Invited Lecturer, Bausch & Lomb.** "Managing Steroid-associated Glaucoma."
- February 2009 **Invited Lecturer, CPE Event in Fort Worth TX, Review of Ophthalmology.** "New Surgical Options in Glaucoma."
- November 2009 **Visiting Professor, Aravind Eye Hospital, Madurai, India.** "When and How Glaucoma Produces Disability."
- November 2009 **Invited speaker, Glaucoma Society of India, Bangalore INDIA.** (1) Glaucoma and Quality of Life; (2) Baerveldt Glaucoma Implants; (3) Trabectome Surgery.
- November 2009 **Invited speaker, Aravind Eye Hospital Grand Rounds, Madurai INDIA.** When and How Glaucoma Produces Disability.
- March 2010 **Invited speaker, Lions Club International Board Meeting, Baltimore Maryland.** Reducing Handicap from Eye Disease: Building a Bridge from Doctors to Patients.
- March 2010 **Invited speaker, Walter Reed Postgraduate Course, Bethesda Maryland.** How Glaucoma Affects the Patient.
- April 2010 **Invited speaker, Korean Ophthalmological Society Preceptorship Meeting, Baltimore, Maryland.** Evaluating How Vision Loss Affects the Patient.

- May 2010 **Invited speaker, Maryland Society of Eye Physicians and Surgeons Meeting, Baltimore, Maryland.** New Surgeries in Glaucoma – When are they useful?
- May 2010 **Invited speaker, Irv Pollack Symposium, Baltimore, Maryland.** Functional Loss in Glaucoma.
- July 2010 **Invited Grand rounds lecturer, Aravind Eye Institute, Pondicherry India.** Glaucoma Drainage Devices.
- July 2010. **Invited Grand rounds lecturer, Aravind Eye Institute, Madurai India.** Pediatric Glaucoma Quiz Show.
- July 2010 **Invited Guest Lectureship, Sankara Nethralaya, Chennai, India.** Measurement of real-world functional impairment in glaucoma, dry eye, and macular degeneration.
- October 2010 **Invited Speaker, Johns Hopkins Geriatrics Ground Rounds** Measuring vision-related disability in the elderly.
- October 2010 **Invited Lecturer, DC Low Vision/Vision Rehab Symposium.** What is low vision in glaucoma
- October 2010 **Invited Speaker, Heed Foundation Foundation Residents Retreat** Panel discussant reviewing pathways to an academic career with promising Ophthalmology residents.

OTHER PROFESSIONAL ACCOMPLISHMENTS

MEETING PRESENTATIONS AND PUBLISHED ABSTRACTS

- October 2010 **Poster presentation, American Academy of Ophthalmology Annual Meeting, Chicago IL.**
Akpek EA, **Ramulu PY.** Difficulty with Sustained Reading in Dry Eye.
- June 2010 **Pape (oral presentation), World Ophthalmology Congress, Berlin, Germany.** The impact of glaucoma on real life functional impairment.
- May 2010. **Poster presentation. Association for Research in Vision and Ophthalmology, Fort Lauderdale FL.** Decreased steps in Elderly Individuals with Glaucoma.
- May 2010 **Poster presentation, American Geriatrics Society Annual Meeting, Orlando, FL.** Restriction of Walking in Glaucoma.
- March 2010. **Paper (oral presentation), American Glaucoma Society Annual Meeting, Naples FL.** Restriction of Physical Activity in Glaucoma.

- November 2009 **Papers, Glaucoma Society of India, Bangalore INDIA.**
1) Baerveldt Glaucoma Implants.
2) Trabectome™ Surgery.
3) Glaucoma and Quality of Life
- July 2009 **Invited Lecturer, World Glaucoma Congress, Boston MA**
The impact of glaucoma on quality of life: driving, reading, and mobility.
- May 2009 **Paper, ARVO, Fort Lauderdale FL**
Increased Driving Cessation in Elderly Subjects With Glaucoma: The Salisbury Eye Evaluation Project.
- March 2009 **Paper, American Glaucoma Society Annual Meeting, San Diego CA**
“Driving cessation and driving limitation in glaucoma: The Salisbury eye evaluation Project.”
- July 2008 **Paper, 10th Annual International Low Vision Conference, Montreal, Canada.** “How glaucoma affects reading speed – The Salisbury Eye Evaluation (SEE).”
- April 2008 **Poster Presentation, ARVO, Fort Lauderdale, April 2008.**
Chang RT, Knight OJ, **Ramulu P**, Shi W, Feuer WJ, Budenz DL. Combining Frequency Doubling Technology and GDx to Screen for Glaucoma.
- April 2008 **Poster Presentation, ARVO, Fort Lauderdale, April 2008.**
Ramulu PY, West SK, Jampel HD, Munoz B, Friedman DS. Bilateral Glaucoma Decreases Reading Speed and Increases Reading Impairment in Participants of the Salisbury Eye Evaluation.
- April 2008 **Poster Presentation, ASCRS Annual Meeting, Chicago IL, April 2008.**
Nix CP, **Ramulu PY**, Gedde SJ. Evaluation of Glaucoma Practice Patterns in Resident and Faculty Glaucoma Clinics.
- March 2008 **Paper, American Glaucoma Society Annual Meeting, Washington D.C.**
“How Glaucoma Affects Reading Speed: The Salisbury Eye Evaluation.”
- April 2007 **Poster Presentation, ARVO, Ft. Lauderdale, FL.**
Ramulu PY, Quigley HA, Friedman DS. A Randomized Controlled Trial to Increase Compliance with Glaucoma Visits.
- April 2004 **Poster Presentation, ARVO, Ft. Lauderdale, FL.**
Ramulu PY, Nathans J. Analysis of light-mediated damage in mice lacking protein phosphatases with EF-hands (*PPEF-1* and *PPEF-2*).
- April 2002 **Poster Presentation, ARVO, Ft. Lauderdale, FL.**
Ramulu PY, Nathans J. The Rod Photoreceptor-specific Phosphatase PPEF-2 Interacts with 14-3-3 zeta in a Phosphorylation-dependent Manner.