

# Timothy William Corson

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Date: April 2023

## PERSONAL

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## EDUCATION

### **Ph D: GRADUATE DEPARTMENT OF MOLECULAR & MEDICAL GENETICS,**

**UNIVERSITY OF TORONTO**, Toronto, ON, Canada, graduated June 2007.

*Supervisor:* Brenda L. Gallie, MD, FRCS(C), FACS, CM, OOnt, Department of Ophthalmology & Vision Science, University of Toronto & Division of Applied Molecular Oncology, Ontario Cancer Institute/Princess Margaret Hospital, University Health Network.

*Thesis:* *KIF14*: From genomic gain to cancer prognosis.

### **M Sc: INSTITUTE OF MEDICAL SCIENCE & COLLABORATIVE PROGRAM IN NEUROSCIENCE,**

**UNIVERSITY OF TORONTO**, Toronto, ON, Canada, graduated March 2002.

*Supervisor:* Jerry J. Warsh, MD, Ph D, FRCP(C), Head, Laboratory of Cellular & Molecular Pathophysiology, Centre for Addiction & Mental Health.

*Thesis:* Mood stabilizer effects on expression of signal transducer genes implicated in bipolar disorder.

### **Hon B Sc: VICTORIA COLLEGE,**

**UNIVERSITY OF TORONTO**, Toronto, ON, Canada, graduated June 1999.

*Specialist:* Molecular Genetics & Molecular Biology

*Major:* Human Biology *Minor:* German Language & Literature

*Grade Point Average:* 3.96 on a 4.0 scale (High Distinction)

## ACADEMIC POSITIONS

### **DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY,**

**INDIANA UNIVERSITY SCHOOL OF MEDICINE**, Indianapolis, IN, USA.

*Department Chair*, 2023–present

*Professor (tenured)*, 2023–present

*Adjunct Professor (tenured)*, 2022–2023

*Adjunct Associate Professor (tenured)*, 2017–2022

*Adjunct Assistant Professor*, 2013–2017

### **EUGENE AND MARILYN GLICK EYE INSTITUTE, DEPARTMENT OF OPHTHALMOLOGY,**

**INDIANA UNIVERSITY SCHOOL OF MEDICINE**, Indianapolis, IN, USA.

*Merrill Grayson Senior Chair in Ophthalmology*, 2019–2023

*Vice-Chair for Basic and Translational Research*, 2022–2023

*Director of Basic and Translational Research*, 2018–2022

*Interim Director of Basic and Translational Research*, 2017–2018

*Professor (tenured)*, 2022–present

*Associate Professor (tenured)*, 2017–2022

*Assistant Professor, 2010–2017*

**DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY,  
INDIANA UNIVERSITY SCHOOL OF MEDICINE, Indianapolis, IN, USA.**

*Professor, 2022–present*

*Associate Professor, 2017–2022*

*Assistant Professor, 2011–2017*

**INDIANA UNIVERSITY MELVIN AND BREN SIMON COMPREHENSIVE CANCER CENTER,  
Indianapolis, IN, USA.**

*Full Member, 2016–present*

*Associate Member, 2011–2016*

**STARK NEUROSCIENCES RESEARCH INSTITUTE,  
INDIANA UNIVERSITY SCHOOL OF MEDICINE, Indianapolis, IN, USA.**

*Primary Member, 2018–present*

**CENTER FOR DIABETES AND METABOLIC DISEASES,  
INDIANA UNIVERSITY SCHOOL OF MEDICINE, Indianapolis, IN, USA.**

*Full Member, 2016–present*

**DEPARTMENT OF MOLECULAR, CELLULAR & DEVELOPMENTAL BIOLOGY,  
YALE UNIVERSITY, New Haven, CT, USA.**

*CIHR Jean-François St-Denis Fellow in Cancer Research, 2007–2010*

*Advisor: Craig M. Crews, Ph D*

## **SELECTED ACADEMIC HONORS**

*Merit Awards*

**Showalter Scholar, Indiana University School of Medicine**

\$75,000; for “significant contributions to the IU School of Medicine and the greater research community”, 2018–2021

**Entrepreneur in Residence, Indiana Center for Biomedical Innovation;** for translational research projects, 2018–2020

**Watanabe Translational Scholar, Indiana Clinical and Translational Sciences Institute**

\$5,000; for “pursuit of studies that will benefit patients around the world”, 2016–2018

**University of Toronto Adel S. Sedra Distinguished Graduate Scholarship**

\$25,000; for overall academic standing and extra-curricular leadership, 2005

**Finalist for 2001 Rhodes Scholarship (Ontario)**

for academic standing, extra-curricular leadership and citizenship qualities, 2001

**University of Toronto Gordon Cressy Student Leadership Award**

for extra-curricular leadership as an undergraduate, 1999

**Victoria University Silver V Award**

for cumulative extent and quality of contributions to student life, 1999

**University of Toronto Arbor Scholarship**

\$12,000; entrance scholarship based on overall high school performance, 1995

**Victoria College Florence Warner Lang Entrance Scholarship**

\$5000; to study German at Victoria College, 1995

*Salary Awards as Trainee*

**Canadian Institutes of Health Research (CIHR) Jean-François St-Denis Fellowship in Cancer Research & Bisby Fellowship**

\$180,000; three-year named salary award for top-ranked postdoctoral research application; ranked 1 of 323 (42 funded), 2007

**National Cancer Institute of Canada (NCIC) Fellowship** (declined)

\$128,562; three-year salary award for postdoctoral research into biomedical aspects of cancer; ranked 13 of 107 (18 funded), 2007

**CIHR Canada Graduate Scholarship**

\$105,000; three-year salary award for doctoral research in the health sciences; ranked 5 of 516 (116 funded), 2004

**NCIC Research Studentship** (declined)

\$64,500; three-year salary award for doctoral research into biomedical aspects of cancer; ranked 1 of 52 (17 funded), 2004

**Foundation Fighting Blindness – Canada Graduate Student Award** (declined)

\$63,000; three-year salary award for blinding eye disease doctoral research, 2004

**Vision Science Research Program Graduate Student Scholarship**

\$13,552; for vision science research at the University of Toronto, 2003

**Natural Sciences & Engineering Research Council (NSERC) Post-Graduate Scholarship B**

\$36,925; granted for research in molecular biology at the University of Toronto, 2001

**NSERC Post-Graduate Scholarship A**

\$34,600; granted for research in molecular biology at a Canadian university, 1999

*Academic Achievements*

**Nominee for IUPUI Outstanding Graduate and Professional Student Mentor Award**, 2019.

**National Research Mentoring Network Trained Facilitator**, 2018.

**Abstract Winner** at University Health Network Research Day, 2006. Awarded based on submitted abstract

**American Association for Cancer Research (AACR) Edward A. Smuckler Memorial**

**Pathobiology of Cancer Workshop**, Snowmass, CO, 2006. Selected to attend; award for Best Translational Science Poster

**CIHR Canadian Student Health Research Forum**, nominated as “within the top 1% of graduate students in the health sciences” by University of Toronto Vice-Provost, Graduate Education & Dean, School of Graduate Studies to attend and present a poster (Winnipeg, MB), 2006

Nominated for **University of Toronto Teaching Assistants’ Excellence Award** for work in BIO250, 2005

**Canadian Bioinformatics Workshops Certificate in Bioinformatics** completed with courses in Bioinformatics (Vancouver, 2003), Proteomics (Calgary, 2004) & Genomics (Vancouver, 2004), 2004

**Best Presentation by a Student** award for oral presentation at University of Toronto Department of Ophthalmology Research Day, 2003

**University of Toronto Teaching Assistants' Training Program Certificate** for completion of five training workshops and teaching dossier, 2003

**Victoria College Thomas Douglas Kendrick Gold Medal**  
for highest final standing in a Basic Medical Science Specialist Program, 1999

**Victoria College Scott Memorial Scholarship**  
\$200; for highest standing in final year of an Honours Science Program, 1999

**President of the Victoria College Class of 1999**  
elected by peers, 1999

*Travel Awards*

**Indiana University School of Medicine Skill Enhancement Award**  
\$8000; granted for an academic visit to University College Dublin, Dublin, Ireland, 2020 (postponed due to COVID-19 pandemic)

**Indiana University Overseas Conference Grant**  
\$800; granted to attend the International Society for Eye Research, Belfast, United Kingdom, 2018

**Indiana University Overseas Conference Grant**  
\$1200; granted to attend the International Society of Ocular Oncology, Sydney, Australia, 2017

**Indiana University Overseas Conference Grant**  
\$1200; granted to attend World Cancer Congress, Xi'an, China, 2013

**Canadian Cancer Society Student Travel Award**  
\$1500; granted to attend 7<sup>th</sup> Joint Conference of the American Association for Cancer Research and the Japanese Cancer Association, Waikoloa, HI, 2007

**IUBMB and Sigma Aldrich Travel Scholarship**  
covered costs; granted to attend 2005 FEBS Forum for Young Scientists and 30<sup>th</sup> FEBS Congress – 9<sup>th</sup> IUBMB Conference, Budapest, Hungary, 2005

**AFLAC-AACR Scholar-in-Training Travel Award**  
\$1000; granted based on submitted poster abstract to attend Oncogenomics 2003, Phoenix, AZ

## **GRANTS**

*Current as Principal Investigator*

1. **National Institutes of Health/National Eye Institute (R01)**, “Targeting the Ref-1 signaling node for treating ocular neovascularization”, August 2020–June 2024, \$1,752,460. (R01EY031939, MPI with M. Kelley)
2. **National Institutes of Health/National Eye Institute (T35)**, “Short-Term Training in Ophthalmology Research for Medical Students”, May 2020–April 2025, \$246,263. (T35EY031282, MPD with D. Wallace)
3. **Carl Marshall Reeves & Mildred Almen Reeves Foundation Grant**, “Diversity of cellular responses to a novel AMD intervention”, November 2022–August 2023, \$50,000. (PI)

4. **Empress Therapeutics**, “Testing of novel agents for ferrochelatase inhibition”, December 2022–December 2023, \$31,303. (PI)
5. **Retina Research Foundation Joe M. and Eula C. Lawrence Research Project**, “Development of a retinal pigment epithelium-specific soluble epoxide hydrolase deletion model”, January 2023–December 2023, \$45,000. (PI)

*Current as Co-Investigator*

6. **Department of Veteran’s Affairs, BLRD**, “Small molecules to promote regeneration and recovery following spinal cord injury”, October 2020–September 2024, \$1,099,165. (BX005188, co-I; PI: Meroueh)
7. **National Institutes of Health/National Eye Institute (R01 supplement)**, “Retinal dysfunction in Alzheimer’s disease mouse models”, July 2021–June 2023 (NCE), \$396,250. (R01EY027779-S1, co-I; PI: Bhatwadekar)
8. **Research to Prevent Blindness**, “Challenge Grant”, July 2021–June 2025, \$300,000. (co-I; PI: Wallace)
9. **Macular Society (UK)**, “Novel homoisoflavonoids for the inhibition of ocular angiogenesis”, October 2021–September 2024, £196,338. (co-I; PI: Mulholland)
10. **Cohen Pilot Grant in Macular Degeneration Research**, “Photoreceptor-RPE interaction in a neovascular AMD murine model”, May 2022–April 2023, \$30,000. (co-I; PI: Imanishi)
11. **National Institutes of Health/National Eye Institute (R21)**, “Gold nanoparticle neurosensory epiretinal implant to treat photoreceptor vision loss”, August 2022–July 2024, \$435,875 (R21EY032652, co-I; PI: Hajrasouliha)
12. **American Cancer Society (Institutional Research Grant Supplement)**, “Diversity in Cancer Research Program Supplement”, January 2023–December 2025, \$132,000. (IRG-22-147-37-IRG, co-I; PI: Kelley)

*Completed*

13. **Retina Research Foundation**, “Role of soluble epoxide hydrolase in blood-retinal barrier function”, January 2022–December 2022, \$45,000. (PI)
14. **Evergreen Therapeutics**, “Comparative study of SH-11037 and SH-18044 eyedrops and intravitreal injections in laser-induced choroidal neovascularization”, December 2021–November 2022, \$162,011. (PI)
15. **American Cancer Society (Institutional Research Grant Supplement)**, “Diversity in Cancer Research Program Supplement”, January 2022–December 2022, \$22,000. (IRG-19-144-34-IRG, co-I; PI: Kelley)
16. **Indiana CTSI Core Pilot Project Grant**, “Small molecule screen to identify novel cathepsin k activator to lower intraocular pressure”, December 2021–November 2022, \$10,000. (co-I; PI: Pattabiraman)
17. **BrightFocus Foundation**, “Inhibiting a novel target for wet AMD therapy”, July 2019–June 2022 (NCE), \$200,000. (M2019069, PI)

18. **Cohen Pilot Grant in Macular Degeneration Research**, “Understanding the role of transcription factor sterol regulatory element binding protein in the regulation of choroidal neovascularization”, May 2021–April 2022, \$30,000. (co-I; PI: Pattabiraman)
19. **National Institutes of Health/National Eye Institute (R01)**, “Ferrochelatase as a mediator of ocular angiogenesis”, March 2016–February 2022 (NCE), \$1,953,080. (R01EY025641, PI)
20. **Indiana University Translational Research Enhancement Grant**, “Efficacy studies of SH-11037, a therapy for neovascular eye disease”, February 2021–February 2022, \$37,500. (PI)
21. **Indiana CTSI Cancer Drug Discovery and Development Program**, “Pharmacokinetics of a novel ferrochelatase inhibitor”, January 2021–January 2022, \$8,652. (PI)
22. **Retina Research Foundation Joe M. and Eula C. Lawrence Research Project**, “Localization and lipid modulation of soluble epoxide hydrolase in choroidal neovascularization”, January 2021–December 2021, \$40,000. (PI)
23. **Retina Research Foundation Pilot Study Grant**, “Effect of sex differences in soluble epoxide hydrolase expression on choroidal neovascularization”, January 2020–December 2020, \$33,000. (PI)
24. **Unity Biotechnology**, “Testing of Novel Agents in Retinoblastoma Orthotopic Xenografts”, October 2019–September 2020, \$63,584. (PI)
25. **Indiana Center for Biomedical Innovation Technology Enhancement Award**, “Soluble epoxide hydrolase inhibition for wet age-related macular degeneration.” February 2018–February 2020, \$50,000. (PI)
26. **Korean National Research Foundation**, “Development of a preclinical candidate targeting ferrochelatase for the treatment of wet age-related macular degeneration.” September 2017–December 2019, \$96,000. (2017M3A9C8027781, co-I, PI: Seo)
27. **Retina Research Foundation Pilot Study Grant**, “Characterization of soluble epoxide hydrolase as a marker of choroidal neovascularization”, January 2019–December 2019, \$30,000. (PI)
28. **Carl Marshall Reeves & Mildred Almen Reeves Foundation Grant**, “Mechanisms of soluble epoxide hydrolase dysregulation in choroidal neovascularization”, November 2018–August 2019, \$88,896. (PI)
29. **Unity Biotechnology**, “Testing of Novel Agents in Retinoblastoma Cell Models”, March 2019–May 2019, \$10,512. (PI)
30. **Retina Research Foundation Pilot Study Grant**, “Screening homoisoflavonoids as soluble epoxide inhibitors for choroidal neovascularization”, January 2018–December 2018, \$30,000. (PI)
31. **Carl Marshall Reeves & Mildred Almen Reeves Foundation Grant**, “New soluble epoxide inhibitors and mechanism in choroidal neovascularization”, December 2017–August 2018, \$49,282. (PI)
32. **Indiana CTSI Program Development Team Funding**, “Precommercialization validation of soluble epoxide hydrolase as a therapeutic target for ocular neovascularization”, September 2016–September 2018, \$15,000. (PI)
33. **Retina Research Foundation Pilot Study Grant**, “Role of epoxy lipid metabolism in choroidal neovascularization”, January 2017–December 2017, \$30,000. (PI)

34. **BrightFocus Foundation**, “Novel antiangiogenic compounds for treatment of choroidal neovascularization”, July 2015–June 2017, \$160,000. (M2015301, PI)
35. **Retina Research Foundation Pilot Study Grant**, “Soluble epoxide hydrolase: a therapeutic target in choroidal neovascularization?”, January 2016–December 2016, \$25,000. (PI)
36. **Research to Prevent Blindness Internal Pilot Project Grant**, “Identifying a marker for a retinoblastoma cell of origin”, January 2016–December 2016, \$10,000. (PI)
37. **Indiana CTSI Core Pilot Project Grant**, “Quantification of cellular porphyrins”, January 2016–December 2016, \$9,828. (PI)
38. **St. Baldrick’s Foundation**, “A novel antiangiogenic therapy for retinoblastoma”, July 2015–June 2016, \$100,000. (PI)
39. **Ralph W. and Grace M. Showalter Research Trust Grant**, “Role of heme metabolism in ocular angiogenesis”, July 2015–June 2016, \$60,000. (PI)
40. **IU Health Strategic Research Initiative in Neuroscience**, “Use of bioluminescence technology to follow retinal ganglion cell death in rodent models of glaucoma”, July 2013–June 2016, \$38,964.23. (co-PI with B. C. Samuels)
41. **Indiana CTSI Research Invention and Scientific Commercialization (RISC) Program**, “Novel antiangiogenic inhibitors of ferrochelatase”, April 2015–March 2016, \$25,000. (PI)
42. **Retina Research Foundation Pilot Study Grant**, “Synergistic effects of a novel antiangiogenic molecule”, January 2015–December 2015, \$25,000. (PI)
43. **International Retinal Research Foundation Grant**, “Mechanistic and therapeutic studies of a novel pharmacotherapy for age-related macular degeneration”, December 2013–November 2015, \$200,000. (PI)
44. **Indiana CTSI Young Investigator Award in Clinical-Translational Research (KL2)**, “Targeted degradation of mutant  $G\alpha_q$  as a novel uveal melanoma therapy”, July 2013–June 2015, \$196,470. (NIH NCATS KL2TR001106, A. Shekhar, PI)
45. **American Cancer Society Institutional Research Grant**, “Cancer predisposition in Kif14 transgenic mice”, June 2013–May 2015, \$40,000. (PI)
46. **Phoenix Research Laboratories**, “Optical coherence tomography for analysis of tumor growth in orthotopic xenograft and transgenic models of retinoblastoma”, February 2015–March 2015, \$2,750. (PI)
47. **Retina Research Foundation Pilot Study Grant**, “Testing a novel antiangiogenic molecule in a mouse model of retinopathy of prematurity”, January 2014–December 2014, \$30,000. (PI)
48. **IUPUI FORCES Grant**, “Precommercialization validation of a novel antiangiogenic molecule in vivo”, May 2014–November 2014, \$25,000. (PI)
49. **Phoenix Research Laboratories**, “Optical coherence tomography imaging of murine retinoblastoma”, February 2014–July 2014, \$10,025. (PI)
50. **Ralph W. and Grace M. Showalter Research Trust Grant**, “Cellular targets of an antiangiogenic natural product”, July 2013–June 2014, \$60,000. (PI)
51. **Alcon Research Institute Young Investigator Grant**, “Targeting of KIF14 for Retinoblastoma Therapy”, February 2013–January 2014, \$50,000. (PI)

52. **Outrun the Sun, Inc.** “2012 Melanoma Research Scholar”, January 2013–December 2013, \$10,000. (PI)
53. **Retina Research Foundation Pilot Study Grant**, “Cellular targets of a candidate AMD therapy”, January 2013–December 2013, \$25,000. (PI)
54. **Indiana CTSI Core Pilot Project Grant**, “Screen for Selective Retinoblastoma Cell Cytotoxins”, August 2011–July 2014, \$9,953. (PI)
55. **Indiana CTSI Program Development Team Funding**, “Development of a Luminescent, Orthotopic Xenograft Model for Retinoblastoma”, July 2011–November 2013, \$18,622. (PI)
56. **Carl Marshall Reeves & Mildred Almen Reeves Foundation Grant**, “Targets of a novel therapy for age-related macular degeneration”, December 2012–August 2013, \$8,500. (PI)
57. **International Retinal Research Foundation Grant**, “Determining the mechanism of action of a novel pharmacotherapy for retinal neovascularization”, October 2011–April 2013, \$57,100. (PI)
58. **IUPUI Research Support Funds Grant**, “Towards a targeted therapy for uveal melanoma: targeting of oncogenic GNAQ Q209L”, July 2011–December 2012, \$35,000. (PI)
59. **Knights Templar Eye Foundation Pediatric Ophthalmology Career Starter Research Grant**, “Screening for KIF14 Inhibitors: a Novel Retinoblastoma Therapeutic Strategy”, July 2011–June 2012, \$40,000. (PI)
60. **CIHR Institute of Genetics Grant for Short-term Research Visit**, “Canadian Genetic Diseases Network - Canadian Bioinformatics Workshops: Genomics & Proteomics 2004”, July–Oct 2004, \$7,200. (PI)

## PUBLICATIONS

ORCID: 0000-0002-1402-7875; h-index = 30. Trainees underlined.

### Refereed Papers

1. Nassief S, Amer M, Shawky E, Sishtla K, Mas-Claret E, Muniyandi A, **Corson TW**, Mulholland DL, Elmasry S. Antiangiogenic polyphenolics from *Erythrina lysistemon* Hutch. *Journal of Natural Products*, doi: 10.1021/acs.jnatprod.2c00909.
2. Muniyandi A,\* Martin M,\* Sishtla K, Motolani A, Sun M, Jensen NR, Qi X, Boulton ME, Prabhu L, Lu T,\* **Corson TW**.\* 2023. PRMT5 is a therapeutic target in choroidal neovascularization. \*#equal contributors. *Scientific Reports*, 13, 1747.
3. Mijit M, Liu S, Sishtla K, Hartman GD, Wan J\*, **Corson TW**\*, Kelley MR\*. 2023. Identification of novel pathways regulated by APE1/Ref-1 in human retinal endothelial cells. \*equal contributors. *International Journal of Molecular Sciences*, 24, 1101.
4. Kwon S, Lee S, Hur J, Ko K, Fei X, Jeong KW, Sishtla K, Muniyandi A, Bae M, **Corson TW**, Seo S-Y. 2022. Synthesis and structural revision of naturally occurring homoisoflavane (+)-dracaeconolide B. *Journal of Natural Products*, 86, 149–156.
5. Park B, Sardar Pasha SPB, Sishtla KL, Hartman GD, Qi X, Boulton ME, **Corson TW**. 2022. Decreased expression of soluble epoxide hydrolase suppresses murine choroidal neovascularization. *International Journal of Molecular Sciences*, 23, 15595.



6. Kim E-Y, Lee B, Kwon S, **Corson TW**, Seo S-Y, Lee K. 2022. Mouse pharmacokinetics and in vitro metabolism of SH-11037 and SH-11008, synthetic homoisoflavonoids for retinal neovascularization. *Pharmaceutics*, 14, 2270.
7. Jensen NR, Lambert-Cheatham N, Hartman GD, Muniyandi A, Park B, Sishtla K, **Corson TW**. 2022. An improved method for murine laser-induced choroidal neovascularization lesion quantification from optical coherence tomography images. *MethodsX*, 9, 101809.
8. The Global Retinoblastoma Study Group. 2022. The Global Retinoblastoma Outcome Study: a prospective, cluster-based analysis of 4064 patients from 149 countries. *Lancet Global Health*, 10, e1128–e1140.
9. Sishtla K, Lambert-Cheatham N, Lee B, Han DH, Park J, Pran Babu SPS, Lee S, Kwon S, Muniyandi A, Park B, Odell N, Waller S, Park IL, Lee SJ, Seo S-Y, **Corson TW**. 2022. Novel small molecule inhibitors of ferrochelatase are antiangiogenic agents. *Cell Chemical Biology*, 29, 1010–1023.
10. Fabian ID et al. and the Global Retinoblastoma Study Group. 2022. Sex, gender, and retinoblastoma: analysis of 4351 patients from 153 countries. *Eye*, 36, 1571–1577.
11. Hartman GD, Lambert-Cheatham N, Kelley MR, **Corson TW**. 2021. Inhibition of APE1/Ref-1 for neovascular eye diseases: from biology to therapy. *International Journal of Molecular Sciences*, 22, 10279.
12. Jacobs B, Palmer N, Shetty T, Dimaras H, Hajrasouliha A, Jusufbegovic D, **Corson TW**. 2021. Patient preferences in retinal drug delivery. *Scientific Reports*, 11, 18996.
13. **Corson TW**,\* Hawkins SM,\* Sanders E, Byram J, Cruz L-A, Olson J, Speidell E, Schnabel R, Balaji A, Ogebeide O, Dinh J, Hinshaw A, Cummings L, Bonds V, Nakshatri H. 2021. Building a virtual summer research experience in cancer for high school and early undergraduate students: lessons from the COVID-19 pandemic. *BMC Medical Education*, 21, 422. \*equal contributors.
14. Heisel C, Yousif J, Mijiti M, Charizanis K, Brigell M, **Corson TW**, Kelley MR. 2021. APE1/Ref-1 as a novel target for retinal diseases. *Journal of Cellular Signaling*, 2, 133–138.
15. Shetty T, Park B, **Corson TW**. 2021. Measurement of mitochondrial respiration in murine retina using Seahorse extracellular flux analyzer. *STAR Protocols*, 2, 100533.
16. Peng M, Park B, Harikrishnan H, Jahan S, Dai J, Rayana NP, Sugali CK, Sharma TP, Sakami S, Imanishi Y, **Corson TW**, Mao W. 2021. A smartphone based method for mouse fundus imaging. *Experimental Eye Research*, 206, 108530.
17. **Corson TW**, Wallace DK. 2021. Modulating a summer ophthalmology research experience for medical students during the COVID-19 pandemic. *International Journal of Medical Education*, 12, 34–35.

18. Sardar Pasha SPB,\* Shetty T,\* Lambert-Cheatham NA, Sishtla K, Mathew D, Muniyandi A, Patwari N, Bhatwadekar AD, **Corson TW**. 2021. Retinal phenotyping of ferrochelatase mutant mice reveals protoporphyrin accumulation and reduced neovascular response. *Investigative Ophthalmology and Visual Science*, 62, 36. \*equal contributors.
19. Fabian ID et al. and the Global Retinoblastoma Study Group. 2021. Retinoblastoma management during the COVID-19 pandemic: A report by the Global Retinoblastoma Study Group including 194 centers from 94 countries. *Pediatric Blood and Cancer*, 68, e28584.
20. Doud EH, Shetty T, Abt M, Mosley AL, **Corson TW**, Mehta A, Yeh E. 2020. NF- $\kappa$ B signaling is regulated by fucosylation in metastatic breast cancer cells. *Biomedicines*, 8, 600.
21. Barry Z, Park B, **Corson TW**. 2020. Pharmacological potential of small molecules for treating corneal neovascularization. *Molecules*, 25, 3468.
22. Shetty T, Sishtla K, Park B, Repass M, **Corson TW**. 2020. Heme synthesis inhibition blocks angiogenesis via mitochondrial dysfunction. *iScience*, 23, 101391.
23. Pran Babu SPS, White D, **Corson TW**. 2020. Ferrochelatase regulates retinal neovascularization. *FASEB J*, 34, 12419–12435.
24. Shetty T, **Corson TW**. 2020. Mitochondrial heme synthesis enzymes as therapeutic targets in vascular diseases. *Frontiers in Pharmacology*, 11, 1015.
25. Kwon S, Lee S, Heo M, Lee B, Fei X, **Corson TW**, Seo S-Y. 2020. Total synthesis of naturally occurring 5,7,8-trioxygenated homoisoflavonoids. *ACS Omega*, 5, 11043–11057.
26. Xu D, Zhou D, Bum-Erdene K, Bailey BJ, Sishtla K, Liu S, Wan J, Aryal UK, Lee JA, Wells CD, Fishel ML, **Corson TW**, Pollok K, Meroueh SO. 2020. Phenotypic screening of chemical libraries enriched by molecular docking to multiple targets selected from glioblastoma genomic data. *ACS Chemical Biology*, 15, 1424–1444.
27. Global Retinoblastoma Study Group (including **Corson TW** and 470 others). 2020. Global retinoblastoma presentation and analysis by national income level. *JAMA Oncology*, 6, 685–695.
28. Whitmore H, Sishtla K, Knirsch W, Andriantiana J, Schwikkard S, Mas-Claret E, Nassief S, Isyaka S, **Corson TW\***, Mulholland DA\*. 2020. Bufadienolides and anti-angiogenic homoisoflavonoids from *Rhodocodon cryptopodus*, *Rhodocodon rotundus* and *Rhodocodon cyathiformis*. *Fitoterapia*, 141, 104479. \*equal contributors.
29. Merrigan SL, Park B, Ali Z, Jensen LD, **Corson TW**, Kennedy BN. 2020. Calcitriol and non-calcemic vitamin D analogue, 22-oxacalcitriol, attenuate developmental and pathological choroidal vasculature angiogenesis ex vivo and in vivo. *Oncotarget*, 11, 493–509.
30. Heo M, Lee B, Sishtla K, Fei X, Lee S, Park S, Yuan Y, Lee S, Kwon S-I, Lee J, Kim S, **Corson TW\***, Seo S-Y\*. 2019. Enantioselective synthesis of homoisoflavanones by asymmetric transfer hydrogenation and their biological evaluation for antiangiogenic activity. *Journal of Organic Chemistry*, 84, 9995-10011. \*equal contributors.

31. Schwikkard SL, Whitmore H, Sulaiman RS, Sishtla K, Shetty T, Basavarajappa HD, Waller C, Alqahtani A, Frankemoelle L, Chapman A, Crouch N, Wetschnig W, Knirsh W, Andriantiana J, Mas-Claret E, Langat MK, Mulholland DA\*, **Corson TW\***. 2019. The antiangiogenic activity of naturally-occurring and synthetic homoisoflavonoids from the Hyacinthaceae (*sensu* APGII). *Journal of Natural Products*, 82, 1227–1239. \*equal contributors.
32. Park B, **Corson TW**. 2019. Soluble epoxide hydrolase inhibition for ocular diseases: vision for the future. *Frontiers in Pharmacology*, 10, 95.
33. Zhou D, Bum-Erdene K, Xu D, Liu D, Tompkins D, Sulaiman RS, **Corson TW**, Chirgwin JM, Meroueh S. 2018. Small molecules inhibit ex vivo tumor growth in bone. *Bioorganic & Medicinal Chemistry*, 26, 6128–6134.
34. Bum-Erdene K, Zhou D, Gonzalez-Gutierrez G, Ghazayel MK, Si Y, Xu D, Shannon HE, Bailey BJ, **Corson TW**, Pollok KE, Wells CD, Meroueh SO. 2018. Small-molecule covalent modification of conserved cysteine leads to allosteric inhibition of the TEAD•Yap protein-protein interaction. *Cell Chemical Biology*, 26, 378–389.
35. Sishtla K, Pitt N, Shadmand M, O'Hare MN, Sulaiman RS, Sinn AL, Condon K, Pollok KE, Sandusky GE, **Corson TW**. 2018. Observations on spontaneous tumor formation in mice overexpressing mitotic kinesin Kif14. *Scientific Reports*, 8, 16152.
36. Sardar Pasha SPB\*, Sishtla K\*, Sulaiman RS, Park B, Shetty T, Shah F, Fishel M, Wikel JH, Kelley MR, **Corson TW**. 2018. Ref-1/APE1 inhibition with novel small molecules blocks ocular neovascularization. *Journal of Pharmacology and Experimental Therapeutics*, 367, 108–118. \*equal contributors.
37. Schwikkard SL, Whitmore H, **Corson TW**, Sishtla K, Opara EI, Jaksevicius A, Langat MK, Carew M, Mulholland DA. 2018. Antiangiogenic activity and cytotoxicity of triterpenoids and homoisoflavonoids from *Massonia pustulata* and *Massonia bifolia*. *Planta Medica*, 84, 638–644.
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### Chapters

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*Invited Editorials*

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*Non-refereed Papers*

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*Published Abstracts*

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2. Muniyandi A, Sishtla K, Hartman G, Song Y, Masters AR, Quinney SK, Kelley MR, **Corson TW**. Ref-1 inhibitor APX2009 is antiangiogenic in murine choroidal neovascularization and human choroidal endothelial cells. Oral presentation at ARVO 2023, New Orleans, LA, April 2023. *Investigative Ophthalmology & Visual Science*, 64: E-abstract 935.
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47. Basavarajappa HD, Lee B, Fei X, Magaña C, Waller C, Crouch NR, Mulholland DA, Seo SY, **Corson TW**. Structure-activity relationship studies of a natural product inhibitor of choroidal angiogenesis. Poster presentation at ARVO 2013, Seattle, WA, May 2013. *Investigative Ophthalmology & Visual Science*, 54: E-abstract 3282.
48. **Corson TW**, Sishtla K. Towards a novel therapy for uveal melanoma: targeting oncogenic  $G\alpha_q$ . *Investigative Ophthalmology & Visual Science*, 54: E-abstract 6877. Poster presentation at ARVO 2012, Fort Lauderdale, FL, May 2012.
49. **Corson TW**, Huang A, Tsao M-S, Gallie BL. Genomic analysis identifies *KIF14* as a candidate oncogene and potential prognostic indicator in the 1q minimal region of genomic gain in multiple cancers. *Biokémia XXIX Suppl. 1*: O1-109P. Poster presentation at 2005 FEBS Forum for Young Scientists and 30<sup>th</sup> FEBS Congress – 9<sup>th</sup> IUBMB Conference, Budapest, Hungary, June–July 2005.
50. **Corson TW**, Huang A, Tsao M-S, Gallie BL. *KIF14* is a candidate oncogene in the 1q minimal region of genomic gain in multiple cancers. *Proceedings of the American Association of Cancer Research* 46:6097. Oral presentation at American Association for Cancer Research 96<sup>th</sup> Annual Meeting, Anaheim, CA, April 2005.
51. **Corson TW**, Gallie BL. 2004. Oncogene identification in the 1q31 minimal region of gain in retinoblastoma. *Proceedings of the American Society for Human Genetics* 54:298. Poster presentation at the American Society for Human Genetics 54<sup>th</sup> Annual Meeting, Toronto, ON, November 2004.

52. Marchong MN, Chen D, **Corson TW**, Lee C, Harmandayan M, Bowles E, Chen N, Gallie BL. 2004. Minimal 16q genomic loss implicates cadherin-11 in retinoblastoma. *Proceedings of the American Society for Human Genetics* 54:505. Poster presentation at the American Society for Human Genetics 54<sup>th</sup> Annual Meeting, Toronto, ON, November 2004.
53. Orlic M, **Corson TW**, Gallie BL. 2003. Oncogene(s) in chromosomal regions of gain in retinoblastoma may be important in tumor development. *Proceedings of the American Association of Cancer Research* (2<sup>nd</sup> ed.) 44: R3240. Poster presentation at American Association for Cancer Research 94<sup>th</sup> Annual Meeting, Washington, DC, July 2003.
54. **Corson TW**, Woo KK, Wasserman MJ, Li PP, Warsh JJ. 2002. Effects of antibipolar drugs on calreticulin and Bcl-2 expression in human neuronal, glial and B lymphoblast cell lines. *International Journal of Neuropsychopharmacology* 5(Suppl. 1): S57. Poster presentation at Collegium Internationale Neuro-Psychopharmacologicum XXIII Congress, Montreal, QC, June 2002.
55. **Corson TW**, Li PP, Kennedy JL, Macciardi F, Cooke RG, Parikh SV, Warsh JJ. 2000. Association analysis of the G-protein  $\beta 3$  subunit gene in bipolar disorder. *Proceedings of the American Psychiatric Association* 153: NR54. Poster presentation at American Psychiatric Association New Research Young Investigators' Poster Session, Chicago, IL, May 2000.

#### *Invited Conference Presentations*

1. "Balancing the Research Programs of the Research Director and the Department," Association of University Professors of Ophthalmology Annual Meeting, San Diego, CA, January 2023.
2. "DEI: The Indiana University Experience," Association of University Professors of Ophthalmology Annual Meeting, Fort Lauderdale, FL, January 2022 (delivered virtually).
3. "Soluble epoxide hydrolase as a target for novel anti-angiogenic therapies," Symposium on the Future Therapies for Retinal Vascular Diseases, College of Pharmacy, Gachon University, Incheon, South Korea, November 2018.
4. "Retinoblastoma: new targets and therapies," Seoul Symposium on Retinoblastoma 2018, Seoul National University, Seoul, South Korea, November 2018.
5. "Soluble epoxide hydrolase as a target for anti-angiogenic therapies," International Society of Eye Research, Belfast, UK, September 2018.
6. "High throughput screening for bioactive compound discovery," Association for Research in Vision and Ophthalmology, Honolulu, HI, May 2018.
7. "Ocular neovascularization: New mechanisms, targets, and treatments," Indiana CTSI 8<sup>th</sup> Annual Meeting, Indianapolis, IN, September 2016.
8. "New combination therapies for macular degeneration," BrightFocus Foundation Research Showcase and Gala, Washington, DC, June 2016.
9. "Ferrochelatase: a novel mediator of ocular angiogenesis," Alcon Research Institute Awards Symposium, Schepens Eye Research Institute, Boston, MA, September 2015.

10. “Multimodality imaging of retinoblastoma animal models,” International Society for Genetic Eye Disease and Retinoblastoma, Halifax, NS, August 2015.
11. “Optical coherence tomography for analysis of tumor growth in orthotopic xenograft and transgenic models of retinoblastoma,” Phoenix Research Laboratories, Association for Research in Vision and Ophthalmology, May 2015.
12. “Retinoblastoma: Imaging of a visible CNS tumor,” Indianapolis Society for Neuroscience, Indianapolis, IN, October 2014.
13. “Naturally-derived chemicals and angiogenesis,” Asia-Pacific Glaucoma Congress & International Symposium of Ophthalmology – Hong Kong, Hong Kong SAR, China, September 2014.
14. “Multimodality imaging for animal models of retinoblastoma,” Asia-Pacific Glaucoma Congress & International Symposium of Ophthalmology – Hong Kong, Hong Kong SAR, China, September 2014.
15. “The power of genetics for retinoblastoma diagnosis, management, and therapy,” Keynote lecture, Kenyan National Retinoblastoma Strategy Meeting, Eldoret, Kenya, September 2013.
16. “KIF14 as an oncogene: a target for novel therapeutics?” World Cancer Congress, Xi’an, China, May 2013.
17. “Pediatric ophthalmology research: Working from molecules to children to save sight,” Knights Templar East Central Department Meeting, Merrillville, IN, March 2012.
18. “Natural product mechanism of action studies: Lessons from triptolide,” International Conference of Medichem-2010, Beijing, China, May 2010.
19. “Retinoblastoma research in the lab of Brenda Gallie”, part of Tissue Art and Bioengineering Panel Discussion, DigiFest/Fusion 06, Ontario Science Centre, Toronto, ON, May 2006.

*Invited Seminars*

1. “Blocking Abnormal Cell Growth in the Lab While Promoting Normal Growth in the Department,” Indiana University School of Medicine Department of Pharmacology & Toxicology, Indianapolis, IN, January 2023.
2. “Novel Targets and Treatments for Neovascular Eye Diseases,” Indiana University School of Medicine Department of Medical & Molecular Genetics, Indianapolis, IN, December 2022.
3. “Therapeutic targeting of heme synthesis for neovascular eye diseases,” Department of Ophthalmology, University of Colorado, Denver, CO, November 2022.
4. “Discovering New Therapeutic Leads for Macular Degeneration,” My Macular and Me webinar, Macular Society, United Kingdom, October 2022.
5. “Therapeutic targeting of heme synthesis for eye diseases and beyond,” Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, ON, June 2022.

6. "Therapeutic targeting of heme synthesis for neovascular eye diseases," UMass Memorial Eye Center, University of Massachusetts Chan Medical School, Worcester, MA, February 2022 (delivered virtually).
7. "Retinoblastoma research update 2022," Cybersight Live Webinar for 377 participants from 91 countries, January 2022.
8. "Novel targets and treatments for neovascular eye diseases," Vanderbilt Eye Institute Distinguished Lecture Series, Vanderbilt University, Nashville, TN, November 2021 (delivered virtually).
9. "Novel targets and treatments for neovascular eye diseases," Translational Biomedical Sciences Graduate Program, Ohio University, Athens, OH, September 2021 (delivered virtually).
10. "Therapeutic discovery at the Glick Eye Institute: Vision for the future," Emeriti Faculty, Indiana University School of Medicine, Indianapolis, IN, May 2021 (delivered virtually).
11. "Targeting angiogenesis in tumors, eyes, and beyond," Indiana University Simon Comprehensive Cancer Center, Indianapolis, IN, December 2020 (delivered virtually).
12. "Ocular Neovascularization: New Mechanisms, Targets, and Treatments," Wellcome-Wolfson Institute for Experimental Medicine, Queen's University Belfast, Belfast, Northern Ireland, June 2020 (delivered virtually).
13. "Novel Targets and Treatments for Neovascular Eye Diseases," Department of Industrial and Physical Pharmacy, Purdue University, West Lafayette, IN, March 2020.
14. "Ocular neovascularization: New mechanisms, targets, and treatments," Rich Lecture, Department of Ophthalmology, University of Alabama Birmingham, Birmingham, AL, December 2019.
15. "Ocular neovascularization: New mechanisms, targets, and treatments," Department of Ophthalmology, Stanford University, Palo Alto, CA, November 2019.
16. "Tools for tracking and treating eye diseases," IUPUI Department of Biomedical Engineering Graduate Seminar, Indianapolis, IN, September 2019.
17. "Retinal degeneration research at the Glick Eye Institute," Foundation Fighting Blindness Vision Walk Kickoff Event, Indianapolis, IN, July 2019.
18. "Novel compounds and targets for blocking neovascularization," Indiana Center for Biomedical Innovation, Indianapolis, IN, February 2019.
19. "Retinoblastoma Genetics," Science of Disease Grand Rounds, Indiana University School of Medicine Department of Ophthalmology, Indianapolis, IN, February 2019.
20. "Neovascular eye diseases: Tumors, targets, and treatments in the visible CNS," Stark Neurosciences Research Institute, Indianapolis, IN, October 2018.

21. "Eye can't handle this: finding drugs for ocular disease," Café Inquiry, Indianapolis, IN, November 2017.
22. "Ocular Tumors: From Genetics to Therapy," Istituto Tumori, Milan, Italy, June 2017.
23. "Eye can't handle this: finding drugs for ocular disease," Taste of Science, Indianapolis, IN, April 2017.
24. "Ocular neovascularization: New mechanisms, targets, and treatments," Department of Ophthalmology, Duke University, Durham, NC, February 2017.
25. "Retinoblastoma and neovascular eye diseases: new mechanisms, targets, and treatments," McPherson Eye Research Institute, University of Wisconsin-Madison, Madison, WI, October 2016.
26. "Eye cancers and wet AMD: Targeting excessive cell growth in the eye," Blanton Eye Institute, Houston, TX, October 2016.
27. "Retinoblastoma: Novel drivers in a genetic cancer," College of Pharmacy, Gachon University, Incheon, South Korea, July 2016.
28. "Ocular neovascularization: New mechanisms, targets, and treatments," College of Pharmacy, Korea University, Sejong, South Korea, July 2016.
29. "Ocular neovascularization: New mechanisms, targets, and treatments," Korea Research Institute of Chemical Technology, Daejeon, South Korea, July 2016.
30. "Ocular neovascularization: New mechanisms, targets, and treatments," College of Pharmacy, Gachon University, Incheon, South Korea, July 2016.
31. "Targeting a driver mutation in uveal melanoma," Melanoma Research Group, University of Tennessee Health Sciences Center, Memphis, TN, May 2016.
32. "Retinoblastoma and ocular neovascularization: new mechanisms, targets, and treatments," Hamilton Eye Institute, University of Tennessee Health Sciences Center, Memphis, TN, May 2016.
33. "Retinoblastoma and ocular neovascularization: new mechanisms, targets, and treatments," Emory Eye Center, Emory University, Atlanta, GA, April 2016.
34. "Ocular tumors and ocular angiogenesis: new mechanisms, targets, and treatments," Houston Methodist Hospital Research Institute, Houston, TX, October 2015.
35. "Novel antimetabolic and antiangiogenic targets in retinoblastoma," Pediatric Molecular Oncology Group, IU Wells Center for Pediatric Research, May 2015.
36. "Ocular tumors and ocular angiogenesis: New mechanisms, targets, and treatments," IU Bloomington Medical Sciences Program, November 2014.



37. "Ocular tumors and ocular angiogenesis: New mechanisms, targets, and treatments," IUPUI Department of Biology, November 2014.
38. "Homoisoflavonoids and ocular angiogenesis," Department of Chemistry, University of Surrey, Guildford, United Kingdom, June 2014.
39. "Ocular tumors: targeting drivers of oncogenesis," Institute of Translational Medicine, University of Liverpool, Liverpool, United Kingdom, June 2014.
40. "Retinoblastoma and ocular angiogenesis: new mechanisms, targets, and compounds," Department of Biological Sciences, Purdue University, West Lafayette, IN, May 2014.
41. "Retinoblastoma and ocular angiogenesis: new mechanisms, targets, and compounds," Chemical Biology Laboratory, National Cancer Institute, Frederick, MD, April 2014.
42. "Uveal melanoma: Setting our sights on driver mutations," Outrun the Sun Scientific Forum, Indianapolis, IN, November 2013.
43. "Ocular tumors: a biologic look," Grand Rounds, Indiana University Melvin and Bren Simon Cancer Center, November 2013.
44. "The surprising molecular and clinical diversity of retinoblastoma," Gregory Derringer Pathology Grand Rounds, Indiana University School of Medicine, September 2013.
45. "Advances in retinoblastoma genetics and modelling," Beijing Children's Hospital Department of Ophthalmology, Beijing, China, May 2013.
46. "Chemical genetic approaches to ocular cancer therapies," University of Kentucky College of Pharmacy, Lexington, KY, January 2013.
47. "Chemical genetic approaches to HIV, cancer and eye disease," IUPUI Department of Chemistry & Chemical Biology, Indianapolis, IN, February 2012.
48. "Chemical genomic approaches to genetic eye disease," Indiana University School of Medicine Department of Medical & Molecular Genetics, Indianapolis, IN, December 2011.
49. "Application of chemical genetics to eye disease," Indiana University School of Medicine – Northwest, Gary, IN, November 2011.
50. "Application of chemical genetics to eye disease," Indiana University School of Optometry *Oxyopia* seminar, Bloomington, IN, October 2011.
51. "Chemical Genetics and Ocular Tumors," Grand Rounds, Indiana University School of Medicine Department of Ophthalmology, Indianapolis, IN, June 2011.
52. "Chemical genomic approaches to genetic eye disease," Indiana University School of Medicine Department of Biochemistry and Molecular Biology, Indianapolis, IN, January 2011.

53. “Chemical genomic approaches to genetic disease,” University of Calgary Department of Medical Genetics, Calgary, AB, March 2010.
54. “Triptolide: From traditional Chinese medicine to polycystic kidney disease treatment,” Yale Center for High Throughput Cell Biology Seminar Series, New Haven, CT, February 2009.
55. “One hit, two hits, three hits, more? Genomic changes in the development of retinoblastoma,” professional development seminar, Retinoblastoma Solutions, Toronto, ON, February 2007.
56. “From data to draft: Writing (and reading) a research article in biology”, University of Toronto Writing Instructors Workshop, Toronto, ON, June 2005; reprised February 2006.

*Selected Other Refereed Poster & Oral Presentations*

1. Jacobs B, Palmer N, Shetty T, Dimaras H, Hajrasouliha A, Jusufbegovic D, **Corson TW**. Treatment preferences among retinal vascular disease patients. Poster presentation at the virtual Association for Ocular Pharmacology and Therapeutics, March 2021. *NEI Reimbursement Award*.
2. Park B, Qi X, Boulton ME, Corson TW. AAV8 mediated expression of shRNA targeting soluble epoxide hydrolase suppresses choroidal neovascularization. Oral presentation at the virtual Association for Ocular Pharmacology and Therapeutics, March 2021. *BrightFocus Foundation Outstanding Paper Award*.
3. Chobisa D, Sishtla KL, **Corson TW**, Yeo Y. Development of nanoparticle formulations for long-term ocular delivery of griseofulvin for treatment of age-related macular degeneration. Poster presentation at the virtual Controlled Release Society meeting, June 2020.
4. Park B, Sardar Pasha SPB, Seo S-Y, **Corson TW**. Assessment of soluble epoxide hydrolase and role of lipid mediators in choroidal neovascularization. Poster presentation at the Association for Ocular Pharmacology and Therapeutics, New Orleans, LA, March 2019.
5. **Corson TW**, Basavarajappa HD, Shetty T, Sulaiman RS, Alkhairy S, Gupta K. Ferrochelatase is an angiogenesis mediator and potential therapeutic target for neovascularization. Poster presentation at Keystone Meeting on Vascular Biology and Human Diseases: From Molecular Pathways to Novel Therapeutics, Santa Fe, NM, February 2018.
6. **Corson TW**, Briggs CM, Sulaiman RS, Mahoui A, Sishtla KL, Shadmand M. A novel antiangiogenic therapy decreases tumor burden in a retinoblastoma mouse model. Oral presentation at International Society for Ocular Oncology, Sydney, Australia, March 2017.
7. **Corson TW**, Sulaiman RS, Lee B, Sun W, Trinh K, Seo SY. Chemical proteomics reveals soluble epoxide hydrolase as an angiogenesis target. Poster presentation at International Chemical Biology Society, Madison, WI, October 2016.
8. Riley AA, **Corson TW**, Samuels BC, Territo PR. Bioluminescence as a novel method of monitoring retinal ganglion cell death associated with glaucoma. Poster presentation at Society of Nuclear Medicine and Molecular Imaging Annual Meeting, San Diego, CA, June 2016.

9. Schwikkard SL, James EE, Mulholland DA, Knirsh W, Sulaiman RS, **Corson TW**, Jaksevicius A, Opara E. Novel, bioactive homoisoflavonoids from a Madagascan *Rhodocodon* species (Hyacinthaceae, *sensu* APG II). Poster presentation at 63rd International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA), Budapest, Hungary, August 2015.
10. **Corson TW**, Racher H, Argiropoulos R, Chan H, Gallie BL, Perrier R, Matevski D, Rushlow D, Shaikh F, Trang H. Residual disease monitoring in a retinoblastoma by PCR of a novel deletion breakpoint. Poster presentation at International Society for Genetic Eye Disease and Retinoblastoma, Halifax, NS, August 2015.
11. **Corson TW**, O'Hare MN, Shadmand M. *Kif14* overexpression accelerates tumor development in the TAg-RB transgenic model of retinoblastoma. Oral presentation at International Society for Ocular Oncology, Paris, France, June 2015.
12. **Corson TW**, Racher H, Argiropoulos R, Chan H, Gallie BL, Perrier R, Matevski D, Rushlow D, Shaikh F, Trang H. Residual disease monitoring in a retinoblastoma by PCR of a novel deletion breakpoint. Poster presentation at International Society for Ocular Oncology, Paris, France, June 2015.
13. **Corson TW**, Wenzel AA, O'Hare MN, Shadmand M. Optical coherence tomography enables imaging of tumor initiation and volumetric quantification of the TAg-RB mouse model of retinoblastoma. Poster presentation at International Society for Ocular Oncology, Paris, France, June 2015.
14. Basavarajappa HD, Qi X, Sulaiman RS, Lee B, Quigley J, Sishtla K, Shadmand M, Boulton ME, Seo SY, **Corson TW**. Ferrochelatase is a novel mediator of angiogenesis. Poster presentation at Translational Science 2015, Washington, DC, April 2015.
15. Sulaiman RS, Basavarajappa HD, Lee B, Fei X, Seo S-Y, **Corson TW**. An anti-angiogenic small molecule therapy for choroidal neovascularization. Oral presentation at the Association for Ocular Pharmacology and Therapeutics, Charleston, SC, February 2015. *Award for best student abstract*.
16. **Corson TW**, Sishtla KL. Targeted degradation of a mutant G-protein: Towards a novel uveal melanoma therapy. Poster presentation at Translational Science 2014, Washington, DC, April 2014.
17. **Corson TW**, Sishtla KL. Development of ligands for targeted degradation of oncogenic  $G\alpha_q$  in uveal melanoma. Oral presentation at International Society for Ocular Oncology, Cleveland, OH, September 2013.
18. Wenzel A, Samuels BC, **Corson TW**. Optical coherence tomography for screening of orthotopic retinoblastoma xenografts. Poster presentation at IUSCC Cancer Research Day, Indianapolis, IN, May 2013. *Award for 2<sup>nd</sup> best poster by a student*.
19. Basavarajappa HD, Magaña C, Waller C, Crouch NR, Mulholland DA, Seo S-Y, **Corson TW**. The structure-activity relationship of homoisoflavanone, an inhibitor of choroidal angiogenesis. Poster presentation at Glick Eye Institute Vision Research Symposium, November 2012.

20. Geary A, Riley A, McCarthy BP, Bailey B, Pollok KE, Territo PR, Samuels BC, **Corson TW**. Imaging and characterization of an orthotopic retinoblastoma xenograft model. Oral presentation at Glick Eye Institute Vision Research Symposium, November 2012.
21. Sishtla K, **Corson TW**. Development and characterization of ligands for oncogenic  $G\alpha_q$  in uveal melanoma. Poster presentation at Glick Eye Institute Vision Research Symposium, November 2012.
22. **Corson TW**, Geary A, Samuels BC, Territo PR, Riley A, McCarthy BP, Pollok KE, Bailey B. Imaging and characterization of an orthotopic retinoblastoma xenograft model. Poster presentation at the 2<sup>nd</sup> Annual Indiana CTSI Symposium, Indianapolis, IN, August 2012.
23. Sishtla K, **Corson TW**. Towards a novel therapy for uveal melanoma: targeting oncogenic  $G\alpha_q$ . Poster presentation at IUSCC Cancer Research Day, Indianapolis, IN, May 2012.
24. **Corson TW**, Zhu CQ, Lau S, Shepherd FA, Tsao M-S, Gallie BL. *KIF14* mRNA expression is independently prognostic for outcome in lung cancer. Oral presentation at Canadian Gene Cure Foundation/Canadian Genetic Diseases Network Annual Scientific Meeting, St-Sauveur, QC, April 2007. *Abstract winner selected for oral presentation.*
25. **Corson TW**, Zhu CQ, Lau S, Shepherd FA, Tsao M-S, Gallie BL. *KIF14* mRNA expression is independently prognostic for outcome in lung cancer. Poster presentation at 7<sup>th</sup> Joint Conference of the American Association for Cancer Research and the Japanese Cancer Association, Waikoloa, HI, January 2007. *Canadian Cancer Society Student Travel Award.*
26. **Corson TW**, Zhu CQ, Lau S, Shepherd FA, Tsao M-S, Gallie BL. *KIF14* mRNA expression is independently prognostic for outcome in lung cancer. Oral presentation at University Health Network Research Day, Toronto, ON, November 2006. *Abstract winner selected for oral presentation.*
27. **Corson TW**, Gallie BL. *KIF14* mRNA expression is a predictor of grade and outcome in breast cancer. Poster presentation at the 11<sup>th</sup> International Congress of Human Genetics, Brisbane, Australia, August 2006.
28. **Corson TW**, Gallie BL. *KIF14* mRNA expression is a predictor of grade and outcome in breast cancer. Poster presentation at the AACR Edward A. Smuckler Memorial Pathobiology of Cancer Workshop, Snowmass, CO, July 2006. *Award for best translational science poster.*
29. **Corson TW**, Gallie BL. *KIF14* is a candidate oncogene in the 1q minimal region of genomic gain in retinoblastoma. Oral presentation at the 15<sup>th</sup> International Society for Genetic Eye Disease/12<sup>th</sup> International Retinoblastoma Symposium, Whistler, BC, September 2005.
30. Bowles E, **Corson TW**, Gallie BL. QM-PCR identifies patterns of association of genomic changes in retinoblastoma. Oral presentation at the 15<sup>th</sup> International Society for Genetic Eye Disease/12<sup>th</sup> International Retinoblastoma Symposium, Whistler, BC, September 2005.
31. **Corson TW**, Huang A, Tsao M-S, Gallie BL. *KIF14* is a candidate oncogene in the 1q minimal region of genomic gain in multiple cancers. Oral presentation at the Canadian Genetic Diseases Network Annual Meeting, Mt. Orford, QC, April 2005. *Abstract winner selected for oral presentation.*

32. **Bowles E**, **Corson TW**, Gallie BL. Profiling hot spot gain and loss in retinoblastoma tumors. Poster presentation at BC Cancer Agency Annual Conference, Vancouver, BC, November 2004.
33. **Corson TW**, Pajovic S, Gallie BL. Towards an improved retinoblastoma mouse model. Oral presentation at University of Toronto Department of Ophthalmology Research Day, Toronto, ON, June 2004.
34. **Corson TW**, Gallie BL. Identifying the 1q31 oncogene(s) in retinoblastoma by QM-PCR. Oral presentation at University Health Network Research Day, Toronto, ON, November 2003. *Abstract winner selected for oral presentation.*
35. **Corson TW**, Gallie BL. Identification and characterization of potential oncogenes located in genomic regions of gain in retinoblastoma. Oral presentation at University of Toronto Department of Ophthalmology Research Day, Toronto, ON, May 2003. *Award for best presentation by a student.*
36. **Corson TW**, Marchong MN, Orlic M, Gallie BL. QM-PCR-based identification of oncogenes and tumor suppressors in chromosomal regions of gain/loss in retinoblastoma. Poster presentation at American Association for Cancer Research — Oncogenomics 2003, Phoenix, AZ, January 2003. *AFLAC-AACR Scholar-in-Training Travel Award.*
37. **Corson TW**, Li PP, Warsh JJ. Association analysis of the G-protein  $\beta 3$  subunit gene in bipolar disorder. Poster presentation at University of Toronto Institute of Medical Science Summer Student Program Research Day, Toronto, ON, August 1998. *Award for best poster in group.*

## PATENTS HELD OR SUBMITTED

1. Lu T, **Corson TW**, Martin M, Muniyandi A, Sun M, Sishtla K. PRMT5 inhibitors for ocular therapy. U.S. Patent Application 18/061,219, filed 2 December 2022.
2. Yeo Y, Chobisa D, **Corson TW**. Pharmaceutical formulations of griseofulvin for long-term ocular delivery. PCT Application PCT/US2021/038792, filed 24 June 2021.
3. **Corson TW**, Seo SY, Lee B, Sishtla KL. Ferrochelatae inhibitors and methods of use. U.S. Patent Application 17/051,018, filed 27 October 2020.
4. Seo SY, Schwikkard S, Lee B, Whitmore H, Mulholland DA, **Corson TW**. Antiangiogenic chromane derivative and uses thereof. PCT Application PCT/KR2019/005143, filed 29 April 2019.
5. **Corson TW**, Sardar Pasha SPB. Ferrochelatae inhibitors and methods of use. PCT Application PCT/US2020/027132, filed 8 April 2020.
6. Kelley MR, **Corson TW**. Targeting ocular diseases with novel APE1/Ref-1 inhibitors. U.S. Patent Application 16/968,009, filed 6 August 2020. Licensed to Ocuphire Pharma, Inc.
7. **Corson TW**, Sulaiman RS. Novel method of using soluble epoxide hydrolase inhibitors. U.S. Patent Application 15/889,464, filed 6 February 2018.
8. **Corson TW**, Sulaiman RS. Combination therapies for blocking angiogenesis. U.S. Patent Application 15/780,980, filed 1 June 2018.

9. **Corson TW**, Basavarajappa HD. Inhibition of ferrochelatase as an antiangiogenic therapy. U.S. Patent 10,752,901, issued 25 August 2020.
10. **Corson TW**, Basavarajappa HD, Seo SY, Lee B, Fei X. Compounds for treatment of angiogenesis-mediated diseases. U.S. Patent 10,238,627, issued 26 March 2019 and 10,738,024, issued 11 August 2020. Also issued in South Korea, Canada, E.U., and Australia.
11. **Corson TW**, Gallie BL. Methods for detecting and treating cancer. U.S. Provisional Patent Application 60/610,604, filed 17 September 2004.

## TEACHING EXPERIENCE

*(Teaching Dossier available on request)*

### INDIANA UNIVERSITY

#### *Lecturer*

- Lecturing (2 sessions), assignment design, and examination for graduate student course V783, Biology of the Visual System, Spring 2023
- Lecturing (2 sessions), assignment design, and examination for graduate student course G724, Cancer Genetics, Spring 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
- Lecturing (1 session), assignment design, and examination for graduate student course G780, Fundamentals of Neuroscience, Spring 2019, 2020, 2021, 2022
- Lecturing (1 session), assignment design, and examination for graduate student course N715, Neuroanatomy Module, Fall 2017, Spring 2018

#### *Course Director*

- Course director medical student research elective course 931A760, Basic Science Research in Ophthalmology, 2020–2023

#### *Facilitator*

- Small-group problem-based-learning facilitator for medical student course X604, Clinical Problem Solving, Spring 2013, 2014, Spring and Fall 2015

#### *Junior Faculty Mentor*

- Padmanabhan Pattabiraman, 2019–present
- Arupratan Das, 2020–present
- Tasneem Sharma, 2020–present
- Sanae Imanishi, 2020–present
- Gabriel Gruionu, 2021–present (through Independent Investigator Incubator program)
- Laura Snell, 2022–present (through Independent Investigator Incubator program)
- Jonathan Flak, 2022 (through Independent Investigator Incubator program)

#### *Postdoc Mentor*

- Rania Sulaiman, 2016
- Sheik Pran Babu Sardar Pasha, 2016–2019
- Trupti Shetty, 2020
- Bomina Park, 2022
- Anbukkarasi Muniyandi, 2020–present
- Yang Song, 2022–present

*Postdoc Advisory Committee Member*

- Patrick Mulcrone, 2019–2020

*PhD Advisor*

- Halesha Basavarajappa, Department of Biochemistry and Molecular Biology, 2012–2016
- Rania Sulaiman, Department of Pharmacology and Toxicology, 2013–2016
- Hannah Whitmore, visiting PhD student from the University of Surrey, 2016
- Trupti Shetty, Department of Pharmacology and Toxicology, 2015–2020
- Dhawal Chobisa, visiting PhD student from Purdue University, 2021
- Bomina Park, Department of Pharmacology and Toxicology, 2017–2022
- Ting Wang, Medical Neuroscience Program (co-mentor with P. Pattabiraman), 2020–present
- Gabriella Hartman, Medical Neuroscience Program, 2021–present

*PhD Committee Member*

- Prahatha Venkatraman, Purdue University Department of Biology, 2013–2018
- Matthew Martin, Department of Pharmacology and Toxicology, 2017–2019
- Sailee Lavekar, IUPUI Department of Biology, 2018–2021
- Hsuen-Yeh Pan, IU School of Optometry, 2020–2022
- Dhawal Chobisa, Purdue University Department of Industrial and Physical Pharmacy, 2019–2022
- Kavitha Anbarasu, Department of Medical and Molecular Genetics, 2020–present
- Aishat Motolani, Department of Pharmacology and Toxicology, 2020–present
- Aditi Khatpe, Department of Biochemistry and Molecular Biology, 2021–present
- Katelin Hawbaker, IUPUI Department of Biology, 2022–present
- Nicole Bodi, Department of Pharmacology and Toxicology, 2022–present
- Surabhi Abhyankar, Department of Biochemistry and Molecular Biology, 2023–present

*PhD Rotation Student Supervisor*

- J. Luke Meador, 2011
- Daniel Sassoon, MSTP; 2011
- Purna Krishnamurthy, 2011
- Halesha Basavarajappa, 2012
- Trupti Shetty, 2015
- Buyun Tang, 2016
- William Blakely, 2016
- Bomina Park, 2017
- Rakshin Kharwadkar, 2017
- Wesley Stansberry, 2019
- Jiajun Li, 2020
- Ting Wang, 2020
- Gabriella Hartman, 2021
- Kristina Day, 2021

*MSc Advisor*

- Michael O'Hare, on exchange from the University of Ulster, 2014–2015

*MS Committee Member*

- J. Luke Meador, 2011–2012
- Robert Brenner, 2021–2022

*Ophthalmology Resident Research Mentor*

- Research mentor to Dr. Aparna Ramasubramanian, 2011–2012

*Medical Student Research Year Mentor*

- Brandon Jacobs, 2020–2021
- Nathan Jensen, 2021–2022

*Medical Student Special Elective Mentor*

- Andrea Wenzel, 2012, 2013
- Kathleen Kelley, 2013
- Christian Briggs, 2018
- Zachary Barry, 2020
- Nirupama Devanathan, 2022

*Summer Medical Student Mentor*

- Sarah Mufti, 2011
- Sameerah Alkhairy, 2015
- Dana Kalagi, 2016
- Christian Briggs, 2016
- Darcy White, 2017
- Zachary Barry, 2018
- Sydney Waller, 2019
- Neeta Patwari, 2019
- Nicholas Palmer, 2020

*Volunteer Medical Student Mentor*

- Christian Briggs, 2015–2017
- Kirby Tobin, 2018
- Neeta Patwari, 2019–2020
- Nathan Lambert-Cheatham, 2019–2020
- Nirupama Devanathan, 2021–2022

*Undergraduate Life-Health Sciences Internship Program Mentor*

- Abdul Karim Khan, 2012–2013
- Mehdi Shadmand, 2013–2014; also as a capstone project 2014–2015
- Khoa Trinh, 2015–2016
- Ivette Muzquiz, 2017–2018
- Maria Witcher, 2019–2020

*Undergraduate RISE Program Mentor*

- Noa Odell, Spelman College, 2020–2021

*Summer Undergraduate Student Mentor*

- Anna Geary, 2012



- Vanessa Gehring, 2013
- Sarah Klotz, 2017, 2018
- Noa Odell, 2020

*Summer High School Student Mentor*

- Carlos Magaña, 2012
- Shawna Williams, 2013
- Kamna Gupta, 2015
- Asmaa Mahoui, 2016
- Noa Odell, 2019
- Kristina Cazares, 2022

**YALE UNIVERSITY**

*PhD Rotation Student Supervisor*

- Alison Wendlandt, 2007
- Dennis Buckley, 2008
- Christopher Firnhaber, 2009

**UNIVERSITY OF TORONTO**

*Co-Instructor*

- Curriculum planning, lecturing, marking and student consultations in course WRT300S, “Writing for Scientists”, Winter 2001, 2002, 2003

*Writing Project Instructor*

- Design of two assignments, TA training, student help sessions and writing tutoring for BIO250Y, “Cell & Molecular Biology”, 2006–2007

*Writing Instructor*

- Individual tutoring in University College Writing Workshop, 2003–2007

*Teaching Assistant*

- Marking of student assignments in BIO250Y, “Cell & Molecular Biology”, 2002–2003
- Laboratory demonstrator for BIO250Y, “Cell & Molecular Biology”, Fall 2003; 2004–2005
- In-class tutor and assignment/exam design for BIO349H, “Eukaryotic Molecular Biology”, 2006

**ONTARIO CANCER INSTITUTE**

*Summer Student Supervisor*

- Ella Bowles, 2004; also 4<sup>th</sup>-year project 2005
- Sofia Khan, 2006

**CENTRE FOR ADDICTION & MENTAL HEALTH**

*4<sup>th</sup>-year Project Student Supervisor*

- Karen Woo, 2000–2001

**PROFESSIONAL SOCIETY MEMBERSHIPS**

- Indiana University Alliance of Distinguished and Titled Professors, 2022–2023.

- American Society for Pharmacology and Experimental Therapeutics (ASPET) since 2019.
- Association of University Professors of Ophthalmology (AUPO), 2018–2023.
- Macular Society since 2018.
- International Society for Eye Research (ISER) since 2018.
- International Chemical Biology Society (ICBS) since 2013; life member.
- International Society of Ocular Oncology (ISOO) since 2013.
- Association for Research in Vision and Ophthalmology (ARVO) since 2011; life member.
- American Association for Cancer Research (AACR) since 2002.
- Canadian Society for Biochemistry, Molecular & Cell Biology (CSBMCB), 2002–2010.

## PROFESSIONAL SERVICE

### *Society and Conference Service*

- Local organizing committee, including Technical Program Committee (chair) and Logistics Committee, Association for Ocular Pharmacology and Therapeutics XVI Conference, 2023.
- Invited member, ARVO Strategic Plan Development Committee, 2023.
- Expert session moderator “Getting your first grant”, ARVO Advance Virtual Conference, February 2022.
- Appointed member, ARVO Publications Committee and Ethics and Diversity subcommittees, 2020–2023.
- ARVO Members-in-Training Poster Judge, 2019, 2021, 2023
- ARVO Global Mentorship Program Mentor, Spring 2019, Fall 2020.
- Co-Organizer and moderator, basic/clinical lecture “A window on the soul: How systemic disease manifests in the eye”, at the Association for Research in Vision and Ophthalmology, Vancouver, BC, April 2019.
- Co-Organizer and moderator, session “New candidate drugs and targets for angiogenesis”, at the International Society of Eye Research, Belfast, UK, September 2018.
- Co-Organizer and moderator, minisymposium “The nuts and bolts of novel drug development”, at the Association for Research in Vision and Ophthalmology, Honolulu, HI, May 2018.
- Elected member of Association for Research in Vision and Ophthalmology annual meeting program committee (Anatomy, Pathology and Oncology Scientific Section), 2016–2019.
- Co-Organizer, Basic/Clinical Lecture “Improving Global Eye Health: Beating the Odds for Neglected and Emerging Diseases Around the World” at the Association for Research in Vision and Ophthalmology, Baltimore, MD, May 2017.
- Moderator of poster session “Uveal melanoma clinical studies” at Association for Research in Vision and Ophthalmology 2017, Baltimore, MD, May 2017.

- Moderator of poster session “What is New in Retinoblastoma?” at Association for Research in Vision and Ophthalmology 2016, Seattle, WA, May 2016.
- Moderator of Day 1 session at One Retinoblastoma World meeting, Toronto, ON, October 2014.
- Session chair of “Ophthalmic Imaging” at Asia-Pacific Glaucoma Congress & International Symposium of Ophthalmology – Hong Kong, Hong Kong SAR, China, September 2014.
- Moderator of paper session “Ocular Tumors: Molecular genetics” at Association for Research in Vision and Ophthalmology 2014, Orlando, FL, May 2014.
- Moderator of poster session “Retinoblastoma” at Association for Research in Vision and Ophthalmology 2013, Seattle, WA, May 2013.
- Co-Chair & Co-organizer of “Enzymes/Protein Target Based Drug Design and Development” at the International Conference of Medicchem-2010, Beijing, China, May 2010.
- Co-Chair (with B. L. Gallie) of “Hot from the Bench” at the Canadian Gene Cure Foundation/Canadian Genetic Diseases Network Annual Scientific Meeting, St-Sauveur, QC, April 2007.
- Co-Chair (with A. L. Murphree) of “Molecular Progression to Retinoblastoma” at the 15<sup>th</sup> International Society for Genetic Eye Disease/12<sup>th</sup> International Retinoblastoma Symposium, Whistler, BC, September 2005.

#### *Journal Service*

- Editorial Board, *Molecules*, 2018–present.
- Associate Editor in Retina, *Frontiers in Ophthalmology*, 2022–present.
- Faculty in Ophthalmic Oncology section, *Faculty Opinions* (formerly Faculty of 1000), 2022–present.
- Associate Editor in Molecular Medicine, *Frontiers in Cell and Developmental Biology*, 2020–present.
- Handling editor, *Frontiers in Oncology*, 2022.
- Review Editor in Retina, *Frontiers in Ophthalmology*, 2020–2022.
- Review Editor in Molecular Medicine, *Frontiers in Cell and Developmental Biology*, 2016–2020.
- Volunteer Editor for *Investigative Ophthalmology & Visual Science*, 2011–2016.
- Invited contributor to **Thomson Pharma** and the **Investigational Drugs Database**, 2010.
- Manuscript reviewer: see [publons.com/a/25723](https://publons.com/a/25723)

Journals: *Science Translational Medicine*, *Cell Chemical Biology*, *PNAS*, *Chemistry & Biology*, *Small*, *Journal of Medicinal Chemistry*, *Journal of Biological Chemistry*, *Oncogene*, *FEBS Letters*, *ACS Medicinal Chemistry Letters*, *iScience*, *Scientific Reports*, *Theranostics*, *BioEssays*, *BBA: Molecular Basis of Disease*, *PLoS ONE*, *Cancer*, *Gene*, *British Journal of Pharmacology*, *Frontiers in Pharmacology*, *Journal of Pharmacology and Experimental Therapeutics*, *Pharmacological Research*, *Diabetes*, *Journal of Controlled Release*, *MedChemComm*, *ChemMedChem*, *Ophthalmology*, *Molecular Vision*, *Experimental Eye Research*, *Investigative Ophthalmology & Visual Science*, *Translational Vision Science & Technology*, *Current Eye Research*, *BMC Ophthalmology*,

*Journal of Ocular Pharmacology and Therapeutics, Clinical Ophthalmology, Molecular Medicine Reports, Cellular Physiology and Biochemistry, RSC Advances, Tumor Biology, Genes, Chromosomes and Cancer, Chemical Biology & Drug Design, Biochemistry and Biophysics Reports, Colloids and Surfaces B: Biointerfaces, Journal of Functional Foods, OncoTargets and Therapy, Journal of Pharmacal Research, DNA & Cell Biology, Acta Ophthalmologica, International Journal of Molecular Sciences, International Journal of Nanomedicine, European Journal of Nutrition, Evidence-Based Complementary and Alternative Medicine, Molecular & Cellular Proteomics, International Journal of Women's Health, Proteome Science, Journal of Neural Transmission.*

*University Leadership and Committees:*

- Member, **Indiana University School of Medicine Executive Committee**, 2023–present.
- Invited member, **Indiana University School of Medicine LCME Self-Study Committee for Standards 11 & 12**, 2023–present.
- Appointed member of **Department of Ophthalmology Diversity, Equity, Inclusion, and Justice (DEIJ) Committee**, 2022–2023.
- Chair of **Eugene and Marilyn Glick Eye Institute Research Leadership Committee**, 2019–2023.
- Appointed member of **Indiana University Simon Cancer Center Cancer Bioinformatics Core Advisory Committee**, 2018–present.
- Member of **Indiana University School of Medicine Budgetary Advisory Committee**, 2018–2023.
- Co-Director of **IU Simon Comprehensive Cancer Center Summer Research Program and Future Scientist Program** (including ACS-Diversity in Cancer Research Program and Jackson State University-IUSCCC Summer Research Experience since 2022), 2017–present.
- Appointed member of **Indiana University School of Medicine Chemical Genomics Core Facility Oversight Committee**, 2016–present.
- Appointed member of **Indiana University School of Medicine Neuroscience/Cancer Peer Review and Mentoring Committee**, 2016–2022.
- Chair of **Eugene and Marilyn Glick Eye Institute Basic Research Infrastructure Committee**, 2011–2023.
- Elected IU School of Medicine representative to **IUPUI Faculty Council**, 2014–2016, 2021–2023.
- Elected Secretary of the **Indiana University School of Medicine Faculty Steering Committee**, 2019–2020; Secretary-Elect 2018–2019.
- Elected departmental representative to **Indiana University School of Medicine Faculty Steering Committee Faculty Assembly**, 2015–2018.
- Member of **IUPUI Research Affairs Committee**, 2011–2018.
- Invited Member of **Indiana University School of Medicine Faculty Development Coordinating Committee** (2012–2017) and **Committee on Dependent Caregiving Demands**, 2012–2014.

- Appointed member of **Indiana CTSI Industry Collaboration Portal Program Development Team**, 2014–2015.
- Member of **Eugene and Marilyn Glick Eye Institute Advocacy Committee**, 2013–2014.
- Member of **IUPUI Sustainability Steering Committee** (2011–2014), **Recycling and Waste Minimization Subcommittee** (2011–2013), and **Resource Management Committee** (2014).
- Appointed member of **Postdoc Advisory Committee**, Yale University, 2009–2010.
- Invited member of **Special Lectures Subcommittee** for Victoria University's 175<sup>th</sup> Anniversary Celebration, 2008–2010.
- Co-opted Student Member of **Academic Board** and Committee on Academic Policy and Programs, University of Toronto, 2006–2007.
- Past-president of **Alumni of Victoria College (AVC)**, 2006–2008; President, 2004–2006; Vice-president, 2002–2004; member at large of the AVC Executive, 2000–2002.
- President of **Molecular & Medical Genetics Graduate Students' Association** and student representative on departmental Steering and Curriculum Committees, 2005–2006.
- Invited member of **Task Force on Graduate Education**, University of Toronto, 2004–2005.
- Elected student representative on University of Toronto **School of Graduate Studies Council** and Division IV (Life Sciences) Executive, 2002–2005.
- Vice-president of **Molecular & Medical Genetics Graduate Students' Association** and Graduate Students' Union Representative, 2004–2005.
- Invited member of **M.Phil. Advisory Committee**, University of Toronto, 2003.
- Elected Student Representative on **Victoria University Board of Regents**, 1997–1999.

*Search Committees:*

- **Faculty Search Committee**, Chair, Indiana University Department of Ophthalmology, 2022–2023.
- **Faculty Search Committee**, Indiana University Department of Ophthalmology, 2017–2020.
- Student member on a **Faculty Search Committee**, University of Toronto Department of Medical Genetics & Microbiology, 2005.
- Invited member of a **Search Committee for Chancellor**, Victoria University, 2003.

*Promotion and Tenure Reviews:*

- **Primary Promotion and Tenure Committee Member**, Indiana University Department of Ophthalmology, 2018–2023.
- **External reviewer for promotion**, Vanderbilt University, 2022.
- **External reviewer for promotion**, Creighton University, 2022.
- **External reviewer for promotion**, University of Kentucky, 2022.
- **External reviewer for promotion**, University of North Texas Health Science Center, 2021.

- **External reviewer for promotion**, University of Michigan, 2021.
- **External reviewer for promotion**, University of Virginia, 2021.
- **External reviewer for promotion and tenure**, The Ohio State University, 2021.
- **Ad-hoc Primary Promotion and Tenure Committee Member**, Indiana University Department of Otorhinolaryngology, 2018–2019.
- **External reviewer for promotion and retention**, Ontario Institute for Cancer Research, 2018.
- **External reviewer for promotion and tenure**, Northwestern University, 2017.

*Grant & Award Review Panels:*

- Indiana University School of Medicine **Limited Submissions** internal reviewer, 2021–2023
- Charter member of **NIH PED1** study section (Pathobiology of Eye Disease 1), 2021–2025.
- Reviewer for **University of Chicago's** Diabetes Research and Training Center Pilot and Feasibility grant, 2023.
- Invited member of **Research to Prevent Blindness** Ad hoc Review Committee, Fall 2020, Spring 2022.
- Reviewer for **American Cancer Society Institutional Research Grants**, 2018, 2019, 2021, 2022.
- Reviewer for **Indiana Clinical and Translational Sciences Institute KL2 Scholars**, 2020, 2021, 2022.
- Reviewer for **Medical Research Council (UK)**, 2022.
- Reviewer for **Israel Science Foundation**, 2022.
- Reviewer for **Children's Cancer and Leukaemia Group (UK)**, 2022.
- Reviewer for **Agence Nationale de la Recherche (France)**, 2022.
- Ad hoc member of **NIH PED1** study section (Pathobiology of Eye Disease 1), Spring, Summer 2021.
- Ad hoc member of **Indiana Biobank COVID-19 Pilot Project** review committee, 2020.
- Ad hoc member of **NIH DPVS** study section (Diseases and Pathobiology of the Visual System), Spring, Fall 2020
- Member of **NIH ZEY1 VSN-03** study section (NEI Individual Training Grant Applications (K08, K23, K99)), Fall 2019, Spring 2020
- Reviewer for **IU Simon Cancer Center Breast Cancer Drug Discovery Grants**, 2020.
- Reviewer for **Indiana Spinal Cord and Brain Injury Fund Grant Program**, 2013, 2014, 2016, 2020.
- Reviewer for **St. Baldrick's Foundation International Scholars**, 2016, 2017, 2018, 2019, 2020.
- Ad hoc reviewer for **University City Science Center - QED Program** (Greater Philadelphia), 2018.

- Ad hoc reviewer for **Stichting Kinderen Kankervrij** (Foundation Children Cancerfree, Netherlands), 2018.
- Ad hoc reviewer for **Fight for Sight** (UK), 2012, 2014, 2018.
- Reviewer for **IU Simon Cancer Center AACR Travel Awards**, 2016, 2017, 2018.
- Reviewer for **Indiana Clinical and Translational Sciences Institute T32 Postdoctoral Fellowships**, 2017.
- Ad hoc reviewer for **Great Ormond Street Hospital Children's Charity Grants**, 2017.
- Ad hoc reviewer for **Le Fonds de la Recherche Scientifique (Belgium) Research Grants**, 2017.
- Ad hoc reviewer for **KWF Kankerbestrijding (Dutch Cancer Society) Research Grants**, 2017.
- Ad hoc reviewer for **Institut National du Cancer (France) Translational Research Grants**, 2016.
- Ad hoc reviewer for **New Zealand Cancer Society Special Projects**, 2016.
- Reviewer for **IU Simon Cancer Center Hester Scholarship**, 2015.
- Member of **IUPUI Signature Center Grant Award Committee**, 2014, 2015.
- Reviewer for **IU Simon Cancer Center Core Pilot Grants**, 2015.
- Ad hoc reviewer for **Kentucky Science & Engineering Foundation R&D Excellence Awards**, 2014.
- Reviewer for **Indiana Clinical and Translational Sciences Institute Collaboration in Translational Research Grants**, 2013.
- Reviewer for **IU Simon Cancer Center Wright Scholarship**, 2013.
- Reviewer for **IU Simon Cancer Center Medicinal and Chemical Synthesis Core Pilot Proposals**, 2013, 2014.
- Member of **Greening IUPUI Grant Award Committee**, 2012.
- Invited member of **Northrop Frye Award Selection Committee**, University of Toronto, 2007.
- Invited member of **Adel S. Sedra Distinguished Graduate Award Selection Committee**, University of Toronto, 2006.
- Invited member of **Fellowship Selection Committee**, Division IV (Life Sciences), School of Graduate Studies, University of Toronto, 2004-2005.

*Presentation Judge:*

- Poster/presentation judge at **Heartland Vision Research Symposium**, 2022.
- Poster judge at **Indiana CTSI Annual Meeting**, 2015, 2019.
- Poster judge at **IU Biochemistry and Molecular Biology Research Day**, 2012, 2014, 2018.
- Poster judge for **IUSM Postdoc Symposium**, 2016, 2017.

- Poster judge for **IUSM Summer Research Program in Academic Medicine**, 2015, 2016.
- Poster judge at **IU Simon Cancer Center Research Day**, 2011, 2014, 2015.
- Presentation judge at **IU Sigma Xi Student Research Day**, 2011.
- Poster Judge at **Sacred Heart University Undergraduate Research Poster Session**, 2009–2010.