

CURRICULUM VITAE

George Ayoub, Ph.D.

EDUCATION

Post-Doctoral Fellowship, University of California, San Francisco.
Ph.D. (Neuroscience), Baylor College of Medicine, Houston, Texas.
B.A. (Physics), Amherst College, Amherst, Massachusetts.

POSITIONS

Ayoub Enterprises

- 2018 – *World Eye Organization*, Senior Advisor.
2020 – *Author, Yo Saludable*. Bilingual health book for clinics. May 2020.
2020 – *Author, To Your Health*. Bilingual health book for clinics. May 2020.
2019 – *Co-Author*, AP Biology textbook, November 2019.
2014 – *Author*, biomedical books. Eight health-related books published since 2014
2018 – *Consultant, Aprofol AG; Iliad Neurosciences*.

Santa Barbara City College, Santa Barbara, California. 2008 –

- 2008 – *Adjunct Faculty, Psychology Department*
Courses: Gen. Psychology, Physiological Psychology, Human Development, Psychology Research
- Co-Lead, Affective Learning Institute, 2018
 - Lead faculty for cultural competency in the classroom, ESCALA mentor, 2018 -

University of California, Santa Barbara, California. 1992 –

- 2018 – *Lecturer, UCSB, Psychology Department*
Courses: Biological Psychology, Cognitive Neuroscience
- 2005 – 2010 *Lecturer, UCSB, Department of Molecular, Cellular and Developmental Biology*
Courses: Intro Biology, Cancer Biology, Developmental Neurobiology, Microscopy
- Oct. 1992 – May 2011 *Project Scientist, Neuroscience Research Institute*
Joined research faculty concurrent with faculty position at sister institution to engage in glaucoma research. Expanded understanding of role of foods in protecting against vision loss. Created project on cancer protection by food products that has led to improvement in prophylactic nutritional recommendations.
- Lead clinical project on autism and cerebral folate deficiency.

- Led project on cancer protection of natural foods.
- Regular speaker at American Cancer Society fundraisers and the Women’s Breast Cancer Resource Center.
- Mentor students in research projects.

California State University, Channel Islands, Camarillo, California. 2017 – 2017 –

Adjunct Faculty, Psychology Department

Courses: Social Psychology, Learning-Cognition-Perception, Criminal Behavior, History & Systems, Behavioral Neuroscience

Antioch University, Santa Barbara, California. 2018 –

Antioch has a rich history of socially engaged training of clinical psychologists in Santa Barbara.

Apr. 2022 –

Adjunct Faculty, Psychology

Courses: Neuropsychology, Research, Consciousness

Sept. 2018 – July 2019

Interim Chair, Masters in Clinical Psychology

Reporting to the provost, supervise graduate faculty in flagship program of university. Built dual-language program, partnering with agencies, foundations and elected officials. Increased diversity, recruited and developed faculty, enhanced community contacts.

Brooks Institute, Santa Barbara, California. 2010 – 2016

Brooks Institute was the premier college of photography until its closure in late 2016. Offering bachelors and masters degrees, this art college of 800 students and five departments pioneered the use of photographic and media arts technology, training generations of visual artists.

May 2010 – Nov. 2016

Dean of Liberal Arts

Reporting to the provost, supervising 50 faculty, overseeing academics, assessment, policies, and advising.

Recruited as dean of liberal arts to revamp general education (GE), making it consistent with national standards, integrating GE into the overall education for the students, improving the perception of GE with students, changing the GE program into one that was outcomes based, developing a culture of evidence based assessment, raising the level of student success, achieving regional accreditation, serving on President’s Cabinet and directing strategic planning.

Aug. 2014 – Nov. 2016

Director, Institutional Research

Built Institutional Research for college, managed data collection and analysis, reported to President and Trustees.

Aug. 2011 – Oct. 2016

Manager, Business Core

Managed business curriculum, revised curriculum to be entrepreneurial, with students starting viable business.

- Over a decade of administrative experience. Mentored by a local college president.
- Revised general education curriculum through faculty-led assessment and program review, resulting in a WASC commendation.

- Established programs to increase retention through graduation of diverse students. Fostered equity and inclusion across liberal arts curriculum for faculty and students.
- Instituted national best practices in assessment and strategic planning.
- Created liberal arts advisory board of national academic leaders to help guide Brooks strategic plans.
- Documented need for significant faculty compensation increases and achieved this increase in 2012 & 2016.
- Created division budgets and adhered to them. Advised president on campus budget, worked with financial officer to build budget.

Westmont College, Santa Barbara, California. 1992 – 2005

Aug. 2001 – Jul. 2005

Professor & Chair, Dept. of Biology

Promoted through faculty ranks to professor and chair in eight years, building externally funded research program and training dozens of research students. Built reputable and inclusive programs to grow major three fold. Inclusive and strategic leader, built long-range vision via shared governance.

Courses: Intro Biology, Physiology, Cell Biology, Neuroscience, Research, Bioethics, Research Literature, Traditional Medicine, Human Physiology

Aug. 1999 – Jul. 2005

Director, Neuroscience Program

Crafted neuroscience major for college and served as first director.

Aug. 1996 – Jul. 2001

Associate Professor, Dept. of Biology

Aug. 1992 – Jul. 1996

Assistant Professor, Dept. of Biology

Aug. 1992 – Jul. 2005

Health Sciences Advisor

Expanded health sciences role to a more diverse population, sending five times as many students to medical school. Developed connections to widen the range of medical colleges graduates chose.

- Professor and chair of a science department, a highly effective teacher & research mentor.
- Chair of department, on all key college committees.
- Persistent voice for student diversity, active on all diversity committees and initiatives.
- Trained over 70 students in research lab, over 85% women and students of color.
- Created a funded summer undergraduate research program at Westmont.
- Built health sciences advising as an inclusive program, increasing the number of students going to medical school five fold in ten years, expanding opportunities for students of color and for women by ten fold.

Adjunct Teaching Positions

Associated with multiple institutions in the Santa Barbara area, teaching a range of courses in medical, biological and psychological sciences.

2017 – 2018

Adjunct Faculty, Oxnard College

Course: General Biology

2010 – 2011

Teacher & Chair, Mathematics, Villanova Preparatory School

Course: Pre-Calculus and manage department

2006 – 2007

Lecturer, Santa Barbara College of Oriental Medicine
Courses: Pathophysiology, Neuroanatomy, Medical Physiology

Junior Faculty

June – Aug. 1992

Visiting Assistant Professor, Summer, Keio University School of Medicine, Department of Physiology, Shinjuku-ku, Tokyo, Japan.
Trained scientists in research methodology in visual neuroscience at the top medical research university in Japan.

June 1990 – June 1992

Research Associate & Lecturer, Dept. of Neurobiology and Behavior, The State University of New York at Stony Brook, New York.

Conducted electrophysiological research in visual neuroscience, taught Physiology course at a top research university in SUNY.

Jan. – June 1990

Visiting Assistant Professor, Spring Semester, Dept. of Biology, Bryn Mawr College, Bryn Mawr, Pennsylvania.

Instruct Intro Biology, Physiology courses at a premier liberal arts college.

Aug. – Dec. 1989

Assistant Professor, Dept. of Information Physiology, National Institute for Physiological Sciences, Myodaiji, Okazaki, Japan.

Trained scientists in research methodology in visual neuroscience at the national physiological institute of Japan.

GRANTS & AWARDS

30 Extramural Grants and Awards over \$25K from public, international, private and foundation sources supporting three broad areas of research: Visual neurophysiology, Glaucoma mechanism & suppression, Cancer and anthocyanins. Grants over \$100K/year in bold. Additional 35 small gifts (under \$25K) not listed. Institutional grants and gifts (facilities) not included. Co-led teams that successfully recruited funds for institutional support.

Glaucoma Mechanism & Suppression:

2019-2021 Cottage Hospital Research Foundation.

2006-2007 Alcon Research.

2003-2008 National Eye Institute of the NIH, grant 1R24-EY014799.

2004-2005 Alcon Research.

2003-2004 Ann Jackson Foundation.

2002-2003 Wiester Family.

2002-2003 Alcon Research.

2002-2003 Ann Jackson Foundation.

2001-2002 Share it Now Foundation.

2001-2004 National Eye Institute of the National Institutes of Health, grant 1R15-EY12774.

2001-2002 Hutton Foundation.

2001-2002 Ann Jackson Foundation.

2000-2001 Pearl Vision Foundation.

2000-2002 American Health Assistance Foundation.

2000-2001 Ann Jackson Foundation.
2000-2001 Wiester Family.
1999-2000 Cottage Hospital Research Foundation.

Cancer & Anthocyanins:

2009-2011 Mankovitz gift.
2008-2009 Cottage Hospital Research Foundation.
2006-2008 Mankovitz gift.
2006-2008 Neurological Health International.
2006-2007 Ann Jackson Foundation.
2005-2006 Wiester Family.

Visual Neurophysiology:

1999-2000 American Health Assistance Foundation.
1999-2000 Fight for Sight Research Foundation.
1993-1998 National Eye Institute of the National Institutes of Health, grant 1R01-EY09173.
1991-1994 International Human Frontiers in Science Program.
1989 Information Sciences Fellowship, National Institute for Physiological Sciences, Japan.
1986-1988 National Research Service Award, National Eye Institute of the NIH.
1985-1986 Medical Research Fellowship, Bank of America - Giannini Foundation.
1984-1985 Research Grant-in-Aid, National Society to Prevent Blindness.
1983 Travel Fellowship, Association for Research in Vision and Ophthalmology.

SERVICE (INSTITUTIONAL AND COMMUNITY)

Senior Advisor, World Eye Organization (2020 -)
Board member, Rooted Santa Barbara (2020 -)
Grant Review Board, Santa Barbara Foundation (2018 -)
Board of Advisors, Waterloo School, Austin, Texas (2018 -)
Grant reviewer, Italian ministry of science (2000 -)
Reviewer of journal papers, multiple journals (1995 -)
Speaker, American Cancer Society (2007 - 2017)
Board member, Santa Barbara Sister Cities Committee (2019 - 2021)
Board of Advisors, Beyond the Bruises (2018 - 2021)
Docent, Community Arts and Music Association (2005 - 2017)
Board of Directors, Advance Products (1990 -)
President's Cabinet, Brooks Institute (2011-2016)
Convener, Strategic Enrollment Management, Brooks Institute (2015-2016)
Strategic Planning, Brooks Institute (2011-2016, chair 2015-16)
Diversity Committee, Westmont College (1995-2004), Brooks Institute (2011-2016)
Personnel (tenure and promotion) Committee, Westmont College (2000-2003)
Board of Directors, Neurological Health International (2005-2009)

Academic Senate, Westmont College (1999-2004), Brooks Institute (2011-16), Antioch (2018-19)
Safety Committee, Westmont College (1998-2003), Brooks Institute (2014-2016, chair)
Montessori Weekend Instructor, Trinity Episcopal Church (1999-2013)
Chair, Santa Barbara Charter School Parent Alliance (2007-2009)
Parent Association, Montessori Center School (2002-2006)

BOOKS

- Ayoub, G. & Ahmavaara, K (2022). *Autism & Your Family*, East Street Press, Santa Barbara, CA, *in preparation*.
- Ayoub, G & Bell, G (2022). *General Psychology*. Cognella Academic Publishing, San Diego, CA, *in preparation*.
- Ayoub, G. (2020). *Yo Saludable*, East Street Press, Santa Barbara, CA. ISBN: 978-1-735072401
- Ayoub, G. (2020). *To Your Health*, East Street Press, Santa Barbara, CA. ISBN: 978-1-735072425
- Ayoub, G. & Swan, C. (2019). *Biology: Genes to Systems*, East Street Press, Santa Barbara, CA. ISBN: 978-1711788063
- Ayoub, G (2019). *Psychology: Active Learning*. Cognella Academic Publishing, San Diego, CA.
- Ayoub, G. (2017). *All the World's Your Stage: How your body works and how to enjoy a healthy, productive and abundant life*. ISBN: 978-1973947516.
- Ayoub, G. (2017). *Mediterranean Ordinary Meals*. ISBN: 978-1541303430.
- Ayoub, G. (2016). *Stuart. A novel*. ISBN: 978-1537783598.
- Ayoub, G. (2014). *Blueberries and Broccoli: A Scientist's Guide to Improving Your Odds with Cancer*. ISBN: 978-1505405446

RESEARCH PUBLICATIONS

- Ahmavaara, K & Ayoub, G (2022). Cerebral folate deficiency in autism spectrum disorder, *Techniques in Neurosurgery & Neuroanatomy, in press*.
- Lam, D, Lee, M, Luo, Y & Ayoub, G (2022). Nutritional aspects of autism spectrum disorder: the role of folate, *J Public Health & Nutrition, in press*.
- Maguire, G, Eubanks, C & Ayoub, G (2022). Neuroprotection of retinal ganglion cells, *Neuronal Signaling, 6, 1-11*.
- Early, T, Halbert, R & Ayoub, G. (2022). Treatment of cerebral folate deficiency lessens autism spectrum disorder symptoms: case study, *in preparation*.
- Ayoub, G, Luo, Y & Lam, D (2021). Normal tension glaucoma: prevalence, etiology and treatment, *J Clin Res Ophthal, 8, 23-25*.

- Tang, J, Oroudjev, E, Wilson, L & Ayoub, G. (2015). Delphinidin and cyanidin exhibit antiproliferative and apoptotic effects in MCF7 human breast cancer cells, *Integr Cancer Sci Therap.* 2, 82-86.
- Lee, C, Nguyen, V, Tang, J, Oroudjev, E, Marasigan, C, Wilson, L & Ayoub, G. (2010). Cytotoxic effect of anthocyanin-rich extract of bilberry on MCF7-GFP-tubulin cells, *J. Med Food*, 13, 1-8.
- Ayoub, G (2008). An organ of exquisite perfection, in Visual Transduction, eds Tink & Barnstable, Human Press, New Jersey.
- Hikita, S.T., Vistica, B.P., Jones, H.R., Keswani, J.R., Watson, M.M., Ericson, V.R., Ayoub, G.S., Gery, I., and Clegg, D.O. (2006). Osteopontin is pro-inflammatory in experimental autoimmune uveitis. *Invest Ophthal Vis Sci*.
- Ayoub, G.S., Grutsis, S & Simko, H. (1998). Imaging endogenous neurotransmitter release from zebrafish retinal slice. *J. Neurosci. Meth.*, 81, 113-119.
- Maguire, G., Simko, H., Weinreb, R. & Ayoub, G. (1998). Transport mediated release of endogenous glutamate in the vertebrate retina. *Pflugers Arch.*, 436, 481-484.
- Ayoub, G.S. & Dorst, K. (1998). Glutamate release from the goldfish retinal slice. *Vision Res.*, 38, 2909.
- Ayoub, GS (1996). On the design of the vertebrate retina. *Origins & Design* 17, 19-22.
- Ayoub, GS (1996). Biosensors for Neurotransmitters. *Wescon/96*, 230-235.
- Matthews, G., Ayoub, G.S. & Heidelberger, R (1994). Presynaptic inhibition by GABA is mediated via two distinct GABA receptors with novel pharmacology. *J. Neurosci.* 14, 1079-1090.
- Ayoub, G.S. & Matthews, G. (1992). Calcium current modulation by substance P in isolated retinal bipolar neurons, *Visual Neurosci.*, 8, 539-544.
- Ayoub, G.S. & Matthews, G. (1991). Conformational restrictions of the GABA_A receptor of retinal bipolar cells, *NeuroReport* 2, 809-811.
- Ayoub, G.S. and Copenhagen, D.R. (1991). Application of a fluorometric method to measure glutamate release from single vertebrate photoreceptors, *J. Neurosci. Meth.* 37, 7-14.
- Ayoub, G.S., Korenbrot, J.I. and Copenhagen, D.R. (1989). Release of endogenous glutamate from isolated cone photoreceptors of the lizard. *Neurosci. Res.* 10, S47-S56.
- Ayoub, G.S. and Lam D.M.K. (1987). Accumulation of γ -aminobutyric acid by horizontal cells isolated from the goldfish retina. *Vision Res.* 27, 2027-2034.
- Malenka, R.C., Ayoub, G.S. and Nicoll, R.A. (1987). Phorbol esters enhance transmitter release in rat hippocampal slices. *Brain Res.* 403, 198-203.
- Ayoub, G.S. and Lam, D.M.K. (1985). The content and release of endogenous GABA in isolated horizontal cells of the goldfish retina. *Vision Res.*, 25, 1187-1193.
- Ayoub, G.S. and Lam, D.M.K. (1984). The release of gamma-aminobutyric acid from horizontal cells of the goldfish (*Carassius auratus*) retina. *J. Physiol.* 355, 191-214.

Ayoub, G.S. (1984). *Potential and Ionic Regulation of gamma-Aminobutyric Acid Transport in Horizontal Cells of a Teleost Retina*. Baylor College of Medicine, Doctoral Dissertation.

Lam, D.M.K. and Ayoub, G.S. (1983). Membrane properties of isolated horizontal cells in the Teleost retina, in *Neural Membranes*, Sun, G.Y., Bazan, N., Wu, J-Y, Porcellati, G. and Sun, A.Y., eds., Humana Press (New Jersey), 289-313.

Lam, D.M.K. and Ayoub, G.S. (1983). Biochemical and biophysical studies of isolated horizontal cells from the Teleost retina. *Vision Res.* 23, 433-444.

RESEARCH PRESENTATIONS

Over 40 presentations and posters at annual meetings of: Society for Neuroscience, Association for Research in Vision and Ophthalmology, American Society for Cell Biology, Human Frontier Science Program, Western Association of Advisors for the Health Professions.

Sponsoring Principal Investigator for 10+ research student presentations at Southern California Conference on Undergraduate Research.

PUBLIC LECTURES

Community presentations, panel discussions, and short responses about current research, science and the arts, applications of research technology, music. Over 100 lectures.

2009-2016 panels, 20 lectures: Women's Breast Cancer Resource Center talk; American Cancer Society Run for the Cure; Pink Link UCSB; Breast Cancer and You, UCSB.

805 CONNECT, Podcast Interview for 805 Conversations, Santa Barbara, CA (2018).
<https://805connect.com/george-ayoub-author-scientist-and-educator/>