

ALLISON N. MCCOY, MD, PHD

Oculofacial Plastic & Reconstructive Surgeon
Del Mar Plastic Surgery
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EDUCATION AND TRAINING

1992-1996	Duke University, Durham, North Carolina Bachelor of Science (BS) in Biology, Minor in Art History
1998-2007	Duke University, Durham, North Carolina Medical Scientist Training Program Doctor of Medicine (MD) Doctor of Philosophy (PhD) in Neurobiology
2007-2008	University of Hawaii, Honolulu Transitional Internship
2008-2011	Wilmer Eye Institute, Johns Hopkins University, Baltimore, Maryland Ophthalmology Residency
2011-2012	Wilmer Eye Institute, Johns Hopkins University, Baltimore, Maryland Neuro-Ophthalmology Fellowship
2012-2014	Kellogg Eye Center, University of Michigan, Ann Arbor Oculofacial & Orbital Surgery Fellowship

EMPLOYMENT

2015-2022	Oculofacial Plastic & Reconstructive Surgeon, Sharp Rees-Stealy Medical Group, San Diego, CA
2022-2023	Oculofacial Plastic & Reconstructive Surgeon, Independent Contractor SENTA Clinic, San Diego, CA

2023-present Cosmetic & Reconstructive Oculofacial Plastic Surgeon, Private Practice,
Del Mar Plastic Surgery, San Diego, CA

RESEARCH EXPERIENCE

1995-1996 Visual perception and Impressionist art, an interdisciplinary thesis in neuroscience and art history, with Claude Cernuschi, PhD, Duke University

1996-1997 Expression patterns of pro-inflammatory cytokines in the brains of rats infected with African sleeping sickness, with Miles Herkenham, PhD, National Institutes of Health

1997-1998 Studies of brightness and motion perception, forming the basis for a statistical theory of vision, with Dale Purves, MD, Duke University Department of Neurobiology

2001-2005 Role of posterior cingulate cortex in gambling behavior, using neurophysiological recordings in awake, behaving macaques, PhD thesis, with Michael Platt, PhD, Duke University Department of Neurobiology

2006-2007 Modulation of benign essential blepharospasm during visual tasks, with Julie Woodward, MD, and Michael Richard, MD, Duke Eye Center

2006-2007 Complications encountered with glaucoma drainage devices, with Joshua Stein, MD, and Paul Lee, MD, JD, Duke Eye Center

2007-2008 History of medicine research elective, examining the lives of four Nobel laureates, with S. Y. Tan, MD, JD, University of Hawaii

2009-2013 Design and evaluation of a Neurologic Hemifield Test, with Michael Boland, MD, PhD, and Harry Quigley, MD, Wilmer Eye Institute

2010-2011 Partnership for the Rapid Elimination of Trachoma (PRET) study in Kongwa, Tanzania, with Sheila West, PhD, Dana Center for Preventive Ophthalmology, Johns Hopkins University

2011-2012 Effects of ranibizumab on a primate model of non-arteritic ischemic optic neuropathy, with Steven Bernstein, MD, PhD, University of Maryland, and Neil Miller, MD, Wilmer Eye Institute

2013-2014 Rituximab (Rituxan®) therapy for severe thyroid-associated ophthalmopathy diminishes IGF-1R+ T cells, with Raymond S. Douglas, MD, PhD and Terry J. Smith, MD, Kellogg Eye Center

HONORS AND AWARDS

1995 Sigma Xi International Research Society Grant Award

1996 Graduate Student Poster Symposium Prize, NC Society for Neuroscience

1996 Phi Beta Kappa, Duke University

1996 Graduation with Distinction, *Cum Laude*, Duke University

1996-1997 Research Training Fellowship Award, NIMH, NIH

2002 Joanne and Irving Diamond Award for Graduate Teaching

2005 Cover for *Nature Neuroscience*

2008 Transitional Resident Project of the Year

2009 Neil Miller Research Grant Award

2010, 2011 Michael Boland Research Grant Award

2011 Mitchell Prize for Resident Research, 1st place

2011-2012 Heed Fellowship

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

2001-2005 Society for Neuroscience

2011-2014 Association for Research in Vision and Ophthalmology

2008-2024 American Academy of Ophthalmology

2011-2024 North America Neuro-Ophthalmology Society (NANOS)

2022-2024 San Diego County Medical Society

TEACHING EXPERIENCE

2001-2002	Teaching Assistant, “Core concepts in neurobiology” for graduate students at Duke University Medical Center
2002-2003	Teaching Assistant, “Basic neurobiology” for medical students at Duke University Medical Center
2009-2010	Lecturer, ophthalmology tutorial for emergency medicine residents at Johns Hopkins Medical Institute
2010	Lecturer, ophthalmology tutorial for internal medicine residents at Johns Hopkins Bayview Medical Center
2010-2011	Teaching Assistant, retinoscopy and subjective refraction practicum for Wilmer residents, with Dr. David Guyton
2012-2014	Lecturer, oculoplastic dissection course for Kellogg residents
2012-2014	Lecturer, neuro-ophthalmology and oculoplastics board review courses for Kellogg residents
2015-2024	Lecturer and Surgical Demonstrator for Orbital Decompression, The Cutting Edge: Oculofacial Plastic Surgery Surgical Skills Course, for national and international fellows, University of Southern California

VOLUNTEER SERVICE

2001	Medical Student Volunteer, Himalayan Health Expeditions. Participated in a three-week medical expedition to provide free medical and dental care to underserved people in the Tibetan Borderlands of northern India.
2001-2005	Co-Director, Students for Humanistic Medicine at Duke. Organized retreats and coffeehouse events for sharing of poetry, music, art, and dance among medical students and residents.
2000-2006	Co-Director, REMEDY at Duke (Recovered Medical Equipment for the Developing World). Led volunteer program to salvage unused medical supplies for projects in over twenty countries, including disaster relief in Sri Lanka and China.

2023 Volunteer with San Diego Eye Team and HELPS International. Traveled to remote homes in rural Guatemala to build stoves and water filtration systems for individual families.

PEER-REVIEWED PUBLICATIONS

1. Andrews TJ, McCoy AN. Can illusory motion disrupt tracking real motion? *Perception* 1997; 26:269-75.
2. Coppola DM, Purves HR, McCoy AN, Purves D. The distribution of oriented contours in the real world. *Proceedings of the National Academy of Sciences* 1998; 95:4002-6.
3. Williams SM, McCoy AN, Purves D. An empirical explanation of brightness. *Proceedings of the National Academy of Sciences* 1998; 95:13301-6.
4. Williams SM, McCoy AN, Purves D. The influence of depicted illumination on perceived brightness. *Proceedings of the National Academy of Sciences* 1998; 95:13296-300.
5. Quan N, Mhlana JD, Whiteside MB, McCoy AN, Kristensson K, Herkenham M. Chronic overexpression of proinflammatory cytokines and histopathology in the brains of rats infected with *Trypanosoma brucei*. *Journal of Comparative Neurology* 1999; 414:114-30.
6. McCoy AN, Crowley JC, Haghighian G, Dean HL, Platt ML. Saccade reward signals in posterior cingulate cortex. *Neuron* 2003; 40:1031-40.
7. McCoy AN, Platt ML. Expectations and outcomes: decision-making in the primate brain. *J Comp Physiol A Neuroethol Sens Neural Behav Physiol* 2005; 191:201-11.
8. McCoy AN, Platt ML. Risk-sensitive neurons in macaque posterior cingulate cortex. *Nature Neuroscience* 2005; 8:1220-7.
9. Hayden BY, Nair AC, McCoy AN, Platt ML. Posterior cingulate cortex mediates outcome-contingent allocation of behavior. *Neuron* 2008; 60:19-25.
10. Richard MJ, Woodward DJ, McCoy AN, Woodward JA. Reading modulates surface EMG recordings in benign essential blepharospasm patients. *Journal of Oculoplastic & Reconstructive Surgery* 2009; 25:378-81.
11. Stein JD, McCoy AN, Asrani S, Herndon LW, Lee PP, McKinnon SJ, Allingham RR, Challa P. Surgical management of hypotony owing to overfiltration in eyes receiving glaucoma drainage devices. *Journal of Glaucoma* 2009; 18:638-41.

12. Mroczkowski MM, Redgrave GW, Miller NR, McCoy AN, Guarda AS. Reversible vision loss secondary to malnutrition in a woman with severe anorexia nervosa, purging type, and alcohol abuse. *International Journal of Eating Disorders* 2011; 44:281-3.
13. Boland MV*, McCoy AN*, Quigley HA, Miller NR, Subramanian PS, Ramulu PY, Murakami P, Danesh-Meyer H. Evaluation of an algorithm for detecting visual field defects due to chiasmal and post-chiasmal lesions: the Neurological Hemifield Test. *Investigative Ophthalmology and Visual Science* 2011; 52:7959-65. *Co-first authors.
14. Chen CJ, McCoy AN, Brahmer J, Handa JT. Emerging treatments for choroidal metastases. *Survey of Ophthalmology* 2011; 56:511-21.
15. Biotti D, Vignal C, Sharshar T, Gout O, McCoy AN, Miller NR. Blindness, weakness, and tingling. *Survey of Ophthalmology* 2012; 57:565-72.
16. Cruz FM, Oktavec KC, McCoy AN, Miller NR. Exceptions that prove the rules in neuro-ophthalmology. *Journal of Neuro-Ophthalmology* 2013; 33:97-101.
17. Wubben TJ, Eghrari A, McCoy AN, Ramsey DJ. Optic atrophy in end-stage giant axonal neuropathy: a case report. *Neuro-Ophthalmology* 2013; 37:209-13.
18. McCoy AN and Tan SY. Otto Loewi (1873-1961): Dreamer and Nobel Laureate. *Singapore Medical Journal* 2014; 55:3-4.
19. McCoy AN, Quigley HA, Wang J, Miller NR, Subramanian PS, Ramulu PY and Boland MV. Development and validation of an improved Neurological Hemifield Test to identify chiasmal and post-chiasmal lesions by automated perimetry. *Investigative Ophthalmology and Visual Science* 2014; 55:1017-23.
20. McCoy AN, Kim DS, Gillespie E, Atkins S, Smith TJ, Douglas RS. Rituximab (Rituxan®) therapy for severe thyroid-associated ophthalmopathy diminishes IGF-1R+ T cells. *Journal of Clinical Endocrinology and Metabolism* 2014; 99:1294-9.
21. Rajaii F*, McCoy AN*, and Smith TJ. Cytokines are both villains and potential therapeutic targets in thyroid-associated ophthalmopathy: from bench to bedside. *Expert Reviews in Ophthalmology* 2014; 9:227-234. *Co-first authors.
22. McCoy AN, Quigley HA, Miller NR, Subramanian PS, Ramulu PY, Boland MV. Author response: Neurological Hemifield Test in binasal defects. *Investigative Ophthalmology and Visual Science* 2015; 56:2570.
23. Tan SY and McCoy AN. James Dewey Watson (1928-): Co-discoverer of the structure of DNA. *Singapore Medical Journal* 2020; 61(10):507-508.

24. Tan SY and McCoy AN. Francis Harry Crick (1916-2004): Co-discoverer of the structure of DNA. *Singapore Medical Journal* 2020; 61(10):505-506.
 25. Oca MC, Meller L, Wilson K, Parikh AO, McCoy A, Chang J, Sudharshan R, Gupta S, Zhang-Nunes S. Bias and Inaccuracy in AI Chatbot Ophthalmologist Recommendations. *Cureus* 2023; 15:9.
 26. Parikh AO, Oca MC, Conger JR, McCoy A, Chang J, Zhang-Nunes S. Accuracy and Bias in Artificial Intelligence Chatbot Recommendations for Oculoplastic Surgeons. *Cureus* 2024; 16:4.
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TEXTBOOKS & BOOK CHAPTERS

1. Douglas RS, McCoy AN, and Gupta S, Editors. Thyroid Eye Disease. First Edition. Springer Science and Business Media. December 2014.
 2. McCoy AN. How to Get a Great Position in Private Practice. In: Weng C.Y., Berrocal A.M. (eds) Women in Ophthalmology. Springer, Cham. https://doi.org/10.1007/978-3-030-59335-3_3. January 2021.
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ABSTRACTS

1. Crowley JC, McCoy AN, Platt ML. Reference frames for spatial representations in posterior cingulate cortex. Presented at the Annual Meeting of the Society for Neuroscience, 2001.
2. McCoy AN, Platt ML. Reward modulation of neuronal activity in posterior cingulate cortex. Presented at the Annual Meeting of the Society for Neuroscience, 2002.
3. McCoy AN, Platt ML. Reward signals in posterior cingulate cortex. Presented at the Annual Meeting of the Society for Neuroscience, 2003.
4. McCoy AN, Platt ML. Reward signals in posterior cingulate cortex. Presented at the Annual Symposium of the Medical Scientist Training Program, 2004.
5. Long AB, Roberts SJ, McCoy AN, Platt ML. Effects of rapid tryptophan depletion on risk preferences in macaques. Presented at the Annual Meeting of the Society for Neuroeconomics, 2005.

6. Long AB, McCoy AN, Roberts SJ, Platt ML. Rapid tryptophan depletion modulates risk preferences in macaques. Presented at the Annual Symposium of the Medical Scientist Training Program, Duke University, 2005.
7. Long AB, McCoy AN, Roberts SJ, Platt ML. Modulation of macaque risk preferences by rapid tryptophan depletion. Presented at the Annual Meeting of the Society for Neuroscience, 2005.
8. Long AB, McCoy AN, Platt ML. Posterior cingulate neurons respond to visually and motivationally salient events. Presented at the Annual Meeting of the Society for Neuroscience, 2006.
9. Long AB, McCoy AN, Platt ML. Posterior cingulate neurons encode visually and motivationally salient events. Presented at the Annual Meeting of the Vision Sciences Society, 2006.
10. McCoy AN, Stein JD, Challa P, Herndon LW, Asrani SG, McKinnon SJ, Lee PP, Allingham RR. Surgical revision of glaucoma drainage devices due to hypotony in the absence of a wound leak. Presented at the Annual Meeting of the American Glaucoma Society, 2007.
11. Stein JD, McCoy AN, Challa P, Herndon LW, Asrani SG, McKinnon SJ, Lee PP, Allingham RR. Surgical revision of glaucoma drainage devices. Presented at the Annual Meeting of the American Glaucoma Society, 2007.
12. McCoy AN, Quigley H, Miller NR, Subramanian P, Boland M. Development of a neurological hemifield test. Presented at the Sixty-Ninth Clinical Meeting of the Wilmer Residents Association, May 14, 2010.
13. McCoy AN, Quigley HA, Miller NR, Subramanian PS, Ramulu PY, Murakami P, Danesh-Meyer H, Boland MV. Development of a neurological hemifield test. Presented at the Annual Meeting of the Association for Research in Vision and Ophthalmology, May 1, 2011.
14. McCoy AN, Quigley HA, Miller NR, Subramanian PS, Ramulu PY, Murakami P, Danesh-Meyer H, Boland MV. Development and evaluation of a neurological hemifield test. Presented at the Seventieth Clinical Meeting of the Wilmer Residents Association, June 3, 2011.
15. McCoy AN, Mkocho H, Munoz B, West SK. Effectiveness of a community screening program for trachomatous trichiasis. Presented at the Seventieth Clinical Meeting of the Wilmer Residents Association, June 3, 2011.
16. McCoy AN, Subramanian PS, Eberhart CG, Bell WR, Xu H, Cruz FM, and Miller NR. How many surgeons and pathologists does it take to diagnose an orbital tumor?

Presented at the Walsh Meeting, Thirty-Eighth Annual Meeting of the North American Neuro-Ophthalmology Society, February 12, 2012.

17. McCoy AN, Munoz BE, Mkocha H, West SK. Effectiveness of community workers in identifying trachomatous trichiasis during mass drug administration. Presented at the Annual Meeting of the Association for Research in Vision and Ophthalmology, May 6, 2012.
18. McCoy AN, Kim DS, Gillespie E, Atkins S, Smith TJ, Douglas RS. Rituximab (Rituxan®) therapy for severe thyroid-associated ophthalmopathy diminishes IGF-1R+ T cells. Presented at the Third International Thyroid Eye Disease Conference, June 28-29, 2013.