

Stanford



Albert Y. Wu, MD, PhD, FACS

Assistant Professor of Ophthalmology

CLINICAL OFFICES

- **Stanford Byers Eye Institute**

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ACADEMIC CONTACT INFORMATION

- **Alternate Contact**

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Bio

BIO

Dr. Wu is a board-certified ophthalmologist and a fellowship-trained specialist in oculoplastic and orbital surgery. This specialty is dedicated to care of the eyelid and other structures around the eye. It is also called ophthalmic plastic and reconstructive surgery.

Dr. Wu focuses his expertise on saving people's vision. He provides comprehensive, compassionate care for both adults and children with sight-threatening diseases and injuries of the eye and surrounding area. He treats tearing, eyelid drooping, thyroid eye disease, eyelid tumors, and other facial disorders. He also performs facial rejuvenation as well as reconstructive and aesthetic surgery procedures.

Dr. Wu is a national leader in advancing the use of stem cell therapy to treat conditions involving the eye and face. His research explores how stem cells can regenerate a patient's own tissues for potential transplant. His goal is to make regenerative medicine an accepted treatment for people worldwide suffering from diseases of the eye.

The National Eye Institute funded Dr. Wu's research to develop stem cell therapies to treat corneal blindness and regenerate the surface of the eye. He leads the Stanford Ophthalmic Stem Cell and Regenerative Medicine Laboratory and is developing leading-edge treatments for vision loss and eye disease.

He also has participated as a principal investigator in research projects including "The Human Eye Cell Atlas." The goal of this project is to create a reference atlas of all cell types in the human eye. Dr. Wu is also helping to lead a groundbreaking study of a strategy for reconstruction of the surface of the eye. These projects are among more than a dozen involving Dr. Wu that have explored innovations in medication and surgical technique for eye disorders.

He has co-authored articles on his research discoveries in JAMA Ophthalmology, Ophthalmic Plastic & Reconstructive Surgery, Clinical and Experimental Ophthalmology, Retina, Medical Research and Innovations, and many other peer-reviewed publications. He is an article reviewer for publications including the American Journal of Ophthalmology, Ophthalmic Plastic and Reconstructive Surgery, and Human Gene Therapy.

He also has contributed to chapters in the textbooks Ophthalmology and Ophthalmologic Oncology: Mount Sinai Expert Guides.

Dr. Wu has presented the findings of his research at numerous international, national, and local conferences. They include meetings of the North American Society of Academic Oculoplastic Surgeons, Endocrine Society, American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS), and others. Topics have included the stem cells and other approaches to perform regeneration procedures on the eye.

Dr. Wu has earned honors for his clinical, research, and academic achievements. He has won awards from the National Institutes of Health, American Society of Ophthalmic Plastic and Reconstructive Surgery, Icahn School of Medicine at Mount Sinai, the University of Washington, and Yale University.

CLINICAL FOCUS

- Ophthalmic Reconstructive & Facial Plastic Surgery
- Orbital Oncology
- Mohs Reconstruction & Eyelid Surgery
- Facial Nerve Palsy
- Thyroid Eye Disease
- Lacrimal and Tear Duct Surgery
- Eyelid Surgery and Reconstruction
- Ptosis Repair
- Ocular Surface Reconstruction
- Blepharoplasty
- Cosmetic Surgery & Treatments
- Pediatric Oculoplastics
- Ophthalmology

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Ophthalmology
- Member, Bio-X
- Member, SPARK at Stanford
- Member, Maternal & Child Health Research Institute (MCHRI)
- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Director of Oculoplastics Research, Department of Ophthalmology, Stanford School of Medicine, (2017- present)

HONORS AND AWARDS

- Dr. Solomon Silver Award in Clinical Medicine, Icahn School of Medicine at Mount Sinai (2016)
- Excellence in Teaching Award, Icahn School of Medicine at Mount Sinai (2015)
- Faculty Council Award for Academic Excellence, Icahn School of Medicine at Mount Sinai (2015)
- Honorary Member, Romanian Association of Plastic Surgery (2015)
- Alpha Omega Alpha Honor Medical Society, Icahn School of Medicine at Mount Sinai (2013)

- ASOPRS Fellowship, American Society of Ophthalmic Plastic and Reconstructive Surgery (2009)
- Young Investigator Award, 1st International Conference on cGMP (2003)
- Biology of Aging Fellowship, National Institute of Health (1998)
- Parrett Scholarship, University of Washington (1998)
- Poncin Award, University of Washington (1998)
- Medical Scientist Training Program, National Institute of Health (1995)
- Richter Fellowship, Yale University (1994)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Fellow, American College of Surgeons (2016 - present)
- Scientific Review Committee, Asia-Pacific Academy of Ophthalmology Congress (2016 - 2016)
- Information Technology Committee, American Society of Ophthalmic Plastic and Reconstructive Surgery (2015 - present)
- Scientific Review Committee, Fight for Sight (2015 - present)
- Education Committee, American Society of Ophthalmic Plastic and Reconstructive Surgery (2014 - present)
- Advocacy and Public Outreach Committee, Association for Research in Vision and Ophthalmology (2013 - present)
- Fellow, American Society of Ophthalmic Plastic and Reconstructive Surgery (2013 - present)

PROFESSIONAL EDUCATION

- Residency: University of Utah Ophthalmology Residency (2009) UT
- Board Certification: Ophthalmology, American Board of Ophthalmology (2013)
- Fellowship: Toronto University Oculoplastic and Orbital Surgery Fellowship (2011) Canada
- Internship: University of Utah Internal Medicine Residency (2006) UT
- Medical Education: University of Washington School of Medicine (2005) WA
- PhD, University of Washington , Molecular and Cellular Biology
- BS, Yale University , Molecular Biophysics and Biochemistry

COMMUNITY AND INTERNATIONAL WORK

- Virtue Foundation Humanitarian Surgical Mission, Khovd, Mongolia
- Ophthalmology Outreach in Tanzania, Morogoro, Tanzania

LINKS

- Wu Research Team Web Site: <http://med.stanford.edu/wu.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My goal is to perform translational research, bringing breakthroughs in stem cell biology and tissue engineering to clinical ophthalmology and reconstructive surgery. Over 6 million people worldwide are afflicted with corneal blindness, usually caused by chemical and thermal burns, ocular cicatricial pemphigoid, Stevens-Johnson syndrome, microbial infections, or chronic inflammation. These injuries often result in corneal vascularization, conjunctivalization, scarring, and opacification from limbal epithelial stem cell (LSC) deficiency (LSCD), for which there is currently no durable treatment. Bilateral LSCD is particularly devastating not only because of lost quality of life and social productivity, but because unlike most retinal diseases that affect the aged, LSCD largely affects the relatively young. The most promising cure for bilateral LSCD is finding an autologous source of limbal epithelial cells for transplantation. Utilizing recent advances in the field of induced pluripotent stem cells (iPSC), my research aims to create a reliable and renewable source of limbal epithelial cells for potential use in treating human eye diseases. These cells will be grown

on resorbable biomatrices to generate stable transplantable corneal tissue. These studies will serve as the basis for human clinical trials and make regenerative medicine a reality for those with sight-threatening disease. On a broader level, this experimental approach could serve as a paradigm for the creation of other transplantable tissue for use throughout the body. Stem cell biology has the potential to influence every field of medicine and will revolutionize the way we perform surgery.

Teaching

STANFORD ADVISEES

Med Scholar Project Advisor

Charbel Bou Khalil, Alana O'Mara, Gun Min Youn

Postdoctoral Faculty Sponsor

Hala Dhowre, Aditi Swarup

Publications

PUBLICATIONS

- **Pathway of care for visual and vestibular rehabilitation after mild traumatic brain injury: a critical review.** *Brain injury*
Xiang, L., Bansal, S., Wu, A. Y., Roberts, T. L.
2022; 1-10
- **The Use of Panitumumab-IRDye800CW in a Novel Murine Model for Conjunctival Squamous Cell Carcinoma.** *Translational vision science & technology*
Youn, G. M., Case, A. G., Jarin, T., Li, B., Swarup, A., Naranjo, A., Bou-Khalil, C., Yao, J., Zhou, Q., Hom, M. E., Rosenthal, E. L., Wu, A. Y.
2022; 11 (7): 23
- **Distribution Of Primary Cilia In hESC-Derived Retinal Organoid**
Jarin, T., Ning, K., Luo, Z., Kowal, T., Li, B., Hu, Y., Wu, A. Y., Goldberg, J. L., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
- **Association between heavy metals and diabetic retinopathy in the National Health and Nutrition Examination Surveys (NHANES)**
Nguyen, A., Lando, L., Trinh, X., Kurian, J., Trinh, V., Wu, A. Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
- **BDNF and cAMP promote retinal ganglion cell survival and function in a porcine model of traumatic optic neuropathy**
Heng, K., Li, B., Xia, X., Wen, R., Nies, A., Wu, A. Y., Goldberg, J. L.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
- **The Tabula Sapiens: A multiple-organ, single-cell transcriptomic atlas of humans.** *Science (New York, N.Y.)*
Jones, R. C., Karkani, J., Krasnow, M. A., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., Harper, W., Hemenez, M., Ponnusamy, R., Salehi, et al
2022; 376 (6594): eabl4896
- **Publisher Correction: Cell types of origin of the cell-free transcriptome.** *Nature biotechnology*
Vorperian, S. K., Moufarrej, M. N., Tabula Sapiens Consortium, Quake, S. R., Jones, R. C., Karkani, J., Krasnow, M., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., et al
2022
- **Sentiment Analysis Surrounding Blepharoplasty in Online Health Forums** *PLASTIC AND RECONSTRUCTIVE SURGERY-GLOBAL OPEN*
Lu, T. J., Nguyen, A., Trinh, X., Wu, A. Y.
2022; 10 (3)
- **Sentiment Analysis Surrounding Blepharoplasty in Online Health Forums.** *Plastic and reconstructive surgery. Global open*
Lu, T. J., Nguyen, A. X., Trinh, X. V., Wu, A. Y.
2022; 10 (3): e4213
- **Cell types of origin of the cell-free transcriptome.** *Nature biotechnology*

- Vorperian, S. K., Moufarrej, M. N., Tabula Sapiens Consortium, Quake, S. R., Jones, R. C., Karkanias, J., Krasnow, M., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., et al
2022
- **PNP Hydrogel Prevents Formation of Symbplephara in Mice After Ocular Alkali Injury.** *Translational vision science & technology*
Swarup, A., Grosskopf, A. K., Stapleton, L. M., Subramaniam, V. R., Li, B., Weissman, I. L., Appel, E. A., Wu, A. Y.
2022; 11 (2): 31
 - **Risks and rewards of increasing patient access to medical records in clinical ophthalmology using OpenNotes.** *Eye (London, England)*
Radell, J. E., Tatum, J. N., Lin, C., Davidson, R. S., Pell, J., Sieja, A., Wu, A. Y.
2021
 - **RNA splicing programs define tissue compartments and cell types at single-cell resolution** *ELIFE*
Olivieri, J., Dehghannasiri, R., Wang, P. L., Jang, S., de Morree, A., Tan, S. Y., Ming, J., Wu, A., Consortium, T., Quake, S. R., Krasnow, M. A., Salzman, J.
2021; 10
 - **Gender Gap in Neurology Research Authorship (1946-2020)** *FRONTIERS IN NEUROLOGY*
Nguyen, A. X., Yoffe, L., Li, A., Trinh, X., Kurian, J., Moss, H. E., Wu, A. Y.
2021; 12
 - **Gender Gap in Neurology Research Authorship (1946-2020).** *Frontiers in neurology*
Nguyen, A. X., Yoffe, L., Li, A., Trinh, X. V., Kurian, J., Moss, H. E., Wu, A. Y.
2021; 12: 715428
 - **Intravitreal delivery of AAV2 transduces porcine retinal ganglion cells**
Heng, K., Li, B., Singh, A., Wen, R., Wu, A. Y., Goldberg, J. L.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2021
 - **Gender Gap in the Award Recipients of the Association for Research in Vision and Ophthalmology**
Ratan, S., Anne Xuan-Lan Nguyen, Biyani, A., Trinh, X., Sun, Y., Saleh, S., Wu, A.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2021
 - **Determination of Patient Sentiment and Emotion in Ophthalmology: Infoveillance Tutorial on Web-Based Health Forum Discussions.** *Journal of medical Internet research*
Nguyen, A. X., Trinh, X., Wang, S. Y., Wu, A. Y.
2021; 23 (5): e20803
 - **Molecular mechanisms and treatments for ocular symblephara.** *Survey of ophthalmology*
Swarup, A., Ta, C. N., Wu, A. Y.
2021
 - **Orbital Fractures: Principles, Concepts and Management.** *Ophthalmic plastic and reconstructive surgery*
Swarup, A., Wu, A. Y.
2021; 36 (4): 425
 - **Longitudinal Gender Authorship Trends in Neurology Research**
Anne Xuan-Lan Nguyen, Yoffe, L., Li, A., Xuan-Vi Trinh, Kurian, J., Wu, A.
LIPPINCOTT WILLIAMS & WILKINS.2021
 - **Impact of COVID-19 on longitudinal ophthalmology authorship gender trends.** *Graefes archive for clinical and experimental ophthalmology = Albrecht von Graefes Archiv fur klinische und experimentelle Ophthalmologie*
Nguyen, A. X., Trinh, X., Kurian, J., Wu, A. Y.
2021
 - **Gender Authorship Trends in the Ophthalmic Plastic and Reconstructive Surgery Literature.** *Ophthalmic plastic and reconstructive surgery*
Gervasio, K. A., Sklar, B. A., Nguyen, A. X., Wu, A. Y.
2021
 - **Gender of Award Recipients in Major Ophthalmology Societies.** *American journal of ophthalmology*
Nguyen, A. X., Ratan, S., Biyani, A., Trinh, X. V., Saleh, S., Sun, Y., Wu, A. Y.
2021

- **COVID-19 Recommendations From Ophthalmic and Plastic Reconstructive Surgery Societies Worldwide.** *Ophthalmic plastic and reconstructive surgery*
Nguyen, A. X., Gervasio, K. A., Wu, A. Y.
2020; 36 (4): 334–45
- **Cannabis and the Cornea.** *Ocular immunology and inflammation*
Nguyen, A. X., Wu, A. Y.
2020: 1–6
- **Differences in SARS-CoV-2 recommendations from major ophthalmology societies worldwide.** *BMJ open ophthalmology*
Nguyen, A. X., Gervasio, K. A., Wu, A. Y.
2020; 5 (1): e000525
- **Training in and comfort with diagnosis and management of ophthalmic emergencies among emergency medicine physicians in the United States.** *Eye (London, England)*
Uhr, J. H., Governatori, N. J., Zhang, Q. E., Hamershock, R. n., Radell, J. E., Lee, J. Y., Tatum, J. n., Wu, A. Y.
2020
- **"Percussive" orbital trauma from wooden drumstick.** *Canadian journal of ophthalmology. Journal canadien d'ophtalmologie*
Garcia, G. A., Veerappan, M. n., Bair, H. n., Charlson, E. S., Wu, A. Y.
2020
- **Management and outcomes of proteasome inhibitor associated chalazia and blepharitis: a case series.** *BMC ophthalmology*
Sklar, B. A., Gervasio, K. A., Leng, S., Ghosh, A., Chari, A., Wu, A. Y.
2019; 19 (1): 110
- **Association between cannabis and the eyelids: A comprehensive review.** *Clinical & experimental ophthalmology*
Nguyen, A. X., Wu, A. Y.
2019
- **Review of Ocular Manifestations of Joubert Syndrome.** *Genes*
Wang, S. F., Kowal, T. J., Ning, K., Koo, E. B., Wu, A. Y., Mahajan, V. B., Sun, Y.
2018; 9 (12)
- **Review of Ocular Manifestations of Joubert Syndrome** *GENES*
Wang, S. F., Kowal, T. J., Ning, K., Koo, E. B., Wu, A. Y., Mahajan, V. B., Sun, Y.
2018; 9 (12)
- **Orbital Metastasis From Urothelial Carcinoma: A Comprehensive Literature Review.** *Ophthalmic plastic and reconstructive surgery*
Sklar, B. A., Gervasio, K. A., Karmazin, K., Wu, A. Y.
2018
- **RELATIONSHIP BETWEEN OBSTRUCTIVE SLEEP APNEA AND THE PRESENCE AND SEVERITY OF DIABETIC RETINOPATHY** *RETINA-THE JOURNAL OF RETINAL AND VITREOUS DISEASES*
Chang, A. C., Fox, T. P., Wang, S., Wu, A. Y.
2018; 38 (11): 2197–2206
- **Multi-electrode recording as a novel technique in electromyography of the orbicularis oculi muscle**
Sklar, B., Gervasio, K. A., Kaur, K., Sivak, M., Wu, A.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018
- **Surgical loupe usage among oculoplastic surgeons in North America** *CANADIAN JOURNAL OF OPHTHALMOLOGY-JOURNAL CANADIEN D'OPHTHALMOLOGIE*
Wei, C., Wu, A. Y.
2018; 53 (2): 139–44
- **Conservative therapy for chalazia: is it really effective?** *Acta ophthalmologica*
Wu, A. Y., Gervasio, K. A., Gergoudis, K. N., Wei, C. n., Oestreicher, J. H., Harvey, J. T.
2018
- **Gun trauma and ophthalmic outcomes.** *Eye (London, England)*

- Chopra, N., Gervasio, K. A., Kalosza, B., Wu, A. Y.
2017
- **Healing comparison of porcine cutaneous incisions made with cold steel scalpel, standard electro-surgical blade, and a novel tissue dissector.** *Medical research and innovations*
Wu, A. Y., Baldwin, T. J., Patel, B. C., Clymer, J. W., Lewis, R. D.
2017; 1 (5)
 - **Novel Hormone Receptors Present in Apocrine Cystadenoma of the Eyelid** *OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY*
Brown, S. E., Friedman, A. H., Phelps, R. G., Bleiweiss, I. J., Wu, A. Y.
2017; 33 (1): E20-E21
 - **Applications of stem cell biology to oculoplastic surgery** *CURRENT OPINION IN OPHTHALMOLOGY*
Daniel, M. G., Wu, A. Y.
2016; 27 (5): 428-432
 - **Awareness and Knowledge of Emergent Ophthalmic Disease Among Patients in an Internal Medicine Clinic** *JAMA OPHTHALMOLOGY*
Uhr, J. H., Mishra, K., Wei, C., Wu, A. Y.
2016; 134 (4): 424-431
 - **Corneal recovery in a rabbit limbal stem cell deficiency model by autologous grafts of tertiary outgrowths from cultivated limbal biopsy explants** *MOLECULAR VISION*
Selver, O. B., Durak, I., Gurdal, M., Baysal, K., Ates, H., Ozbek, Z., Wang, Z., Wu, A., Wolosin, J. M.
2016; 22: 138-149
 - **Prognostic Value of Ocular Trauma Scores in Patients With Combined Open Globe Injuries and Facial Fractures** *AMERICAN JOURNAL OF OPHTHALMOLOGY*
Gervasio, K. A., Weinstock, B. M., Wu, A. Y.
2015; 160 (5): 882-888
 - **Diagnostic Delay and Amniotic Membrane Transplantation in a Child With Atypical Stevens-Johnson Syndrome.** *Journal of pediatric ophthalmology & strabismus*
Gervasio, K. A., Wu, A. Y.
2015; 52 Online: e41-4
 - **Bilateral Lacrimal Gland Disease Clinical Features of 97 Cases** *OPHTHALMOLOGY*
Tang, S. X., Lim, R. P., Al-Dahmash, S., Blyadon, S. M., Cho, R. I., Choe, C. H., Connor, M. A., Durairaj, V. D., Eckstein, L. A., Hayek, B., Langer, P. D., Lelli, G. J., Mancini, et al
2014; 121 (10): 2040-?
 - **Enucleation versus evisceration in ocular trauma: a retrospective review and study of current literature.** *Orbit (Amsterdam, Netherlands)*
Zheng, C., Wu, A. Y.
2013; 32 (6): 356-361
 - **Idiopathic recurrent subconjunctival hemorrhage.** *Canadian journal of ophthalmology. Journal canadien d'ophtalmologie*
Wu, A. Y., Kugathasan, K., Harvey, J. T.
2012; 47 (5): e28-9
 - **A case of orbital involvement in IgG4-related disease.** *Orbit (Amsterdam, Netherlands)*
Teichman, J. C., Wu, A. Y., El-Shinnawy, I., Harvey, J. T.
2012; 31 (5): 327-329
 - **Cadaveric Anatomical Comparison of the Lateral Nasal Wall After External and Endonasal Dacryocystorhinostomy** *OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY*
Rootman, D., DeAngelis, D., Tucker, N., Wu, A., Hurwitz, J.
2012; 28 (2): 149-153
 - **Endogenous bacterial endophthalmitis after routine colonoscopy** *CANADIAN JOURNAL OF OPHTHALMOLOGY-JOURNAL CANADIEN D OPHTHALMOLOGIE*
Wu, A. Y., Oestreicher, J. H.
2011; 46 (6): 556-557

- **Bicanalicular Laceration Repair Via an Endoscopic Retrograde Approach** *OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY*
Wu, A. Y., Tucker, N. A.
2011; 27 (6): E165-E167
- **Bifocal Orbital and Nasopharyngeal Amyloidomas Presenting as Graves Disease** *OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY*
Wu, A. Y., Chapman, W. B., Witterick, I. J., DeAngelis, D. D.
2011; 27 (5): E132-E134
- **Indications for Orbital Imaging by the Oculoplastic Surgeon** *OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY*
Wu, A. Y., Jebodhsingh, K., Le, T., Law, C., Tucker, N. A., DeAngelis, D. D., Oestreicher, J. H., Harvey, J. T.
2011; 27 (4): 260-262
- **Enduragen patch grafts for exposed orbital implants.** *Orbit (Amsterdam, Netherlands)*
Wu, A. Y., Vagefi, M. R., Georgescu, D., Burroughs, J. R., Anderson, R. L.
2011; 30 (2): 92-95
- **Eyelash Resection Procedure for Severe, Recurrent, or Segmental Cicatricial Entropion** *OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY*
Wu, A. Y., Thakker, M. M., Wladis, E. J., Weinberg, D. A.
2010; 26 (2): 112-116
- **Low-cost headlamps for facial and oculoplastic surgery** *OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY*
Wu, A. Y., Vagefi, M. R., Georgescu, D., McCann, J. D., Anderson, R. L.
2008; 24 (5): 429-429
- **Molecular determinants for cyclic nucleotide binding to the regulatory domains of phosphodiesterase 2A** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Wu, A. Y., Tang, X. B., Martinez, S. E., Ikeda, K., Beavo, J. A.
2004; 279 (36): 37928-37938
- **The two GAF domains in phosphodiesterase 2A have distinct roles in dimerization and in cGMP binding** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Martinez, S. E., Wu, A. Y., Glavas, N. A., Tang, X. B., Turley, S., Hol, W. G., Beavo, J. A.
2002; 99 (20): 13260-13265
- **Opposing effects of reactive oxygen species and cholesterol on endothelial nitric oxide synthase and endothelial cell caveolae** *CIRCULATION RESEARCH*
Peterson, T. E., Poppa, V., Ueba, H., Wu, A., Yan, C., Berk, B. C.
1999; 85 (1): 29-37
- **Agonist induced homologous desensitization of mu-opioid receptors mediated by G protein-coupled receptor kinases is dependent on agonist efficacy** *MOLECULAR PHARMACOLOGY*
Kovoor, A., Cerver, J. P., Wu, A., Chavkin, C.
1998; 54 (4): 704-711