

CURRICULUM VITAE (August 1, 2018)

Michael W. Gaynon, MD

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Academic Appointments:

July 1, 2018: Clinical Professor of Ophthalmology, Stanford University School of Medicine

December 9, 2016 to June 30, 2018: Clinical Instructor of Ophthalmology, Stanford University School of Medicine

2005 to December 8, 2016: Adjunct Clinical Professor of Ophthalmology, Stanford University School of Medicine

August, 1991 to 2005: Adjunct Clinical Associate Professor of Ophthalmology, Stanford University School of Medicine

1979 - August 1991: Director of the Vitreoretinal Surgery Service, Stanford University.

1986 - August 1991: Associate Professor of Ophthalmology (Clinical), Stanford University

1979 - 1986: Assistant Professor of Surgery/Ophthalmology, Stanford University

Education:

1968 BA, Kenyon College, Gambier, Ohio
Cum Laude, Honors.

1972 MD, University of North Carolina (AOA)

1972-3 Medical Internship, Children's Hospital of San Francisco and VA Hospital, San Francisco

1973-6 Residency in Ophthalmology, Ochsner Clinic, New Orleans, LA

1977 Fellowship in Diabetic Retinopathy (Diabetic Retinopathy Study) Harvard Medical School

Department of Ophthalmology
Massachusetts Eye & Ear Infirmary

1977-8 Fellowship in Vitreoretinal Surgery
Eye Research Institute of the
Retina Foundation, Boston, MA and
Massachusetts Eye & Ear Infirmary

Board Certification: Ophthalmology (April 26, 1978)

Licensure: California (September 13, 1976)

Research experience prior to receiving MD:

1968 Marquette University School of Medicine.
Milwaukee, Wisconsin
Department of Anatomy.
Research Assistant, myocardial
revascularization study.

1969 University of North Carolina.
Departments of Physiology and
Medicine. Research Assistant,
renal tubular micropuncture study.

1971 University of North Carolina.
Department of Ophthalmology.
Research Assistant, study of
trabeculectomy in owl monkeys.

Grants and Research Studies at Stanford:

1. NIH Grant 2S07 RR 5353-23, June 1, 1984-
May 31, 1985. Inhibition of Ocular
Fibroblasts by 5-FU in Ethylene Vinyl
Acetate Copolymer.
2. Co-PI: STOP-ROP Study 1994 - 1999
3. Co-PI: ETROP Study 2000–Completion. Executive Committee 2002-3
4. SUPPORT Trial, Stanford-LPCH (Study Ophthalmologist)
5. Inositol Trial, Stanford-LPCH (Study Ophthalmologist)

Past Stanford Departmental Appointments:

1. Residency Director, Ophthalmology
2. Clinic Chief, Ophthalmology

University Committees:

1. University Laser Safety Committee (1982 -
August, 1991)
2. School of Medicine Laser Committee (1987 -
August, 1991)

3. Medical School Faculty Senate (1987 - August, 1991)
4. Professional Practice Committee (1988-1990)
5. Quality Assurance Committee (1988 - 1989)
6. Clinic Operations Committee (1990 -1991)
7. Board of Directors, Faculty Practice Plan, Stanford University (1990 - 1991)
8. Credentials Committee, LPCH (over 20 years)

Memberships in Professional Organizations:

1. Assoc. for Research in Vision and Ophthalmology
2. Retina Society
3. American Society of Retinal Specialists
4. American Academy of Ophthalmology
5. Schepens International Society
6. Pacific Retina Club
7. Massachusetts Eye & Ear Alumni Association
8. Peninsula Eye Society, Past President

Journal Articles and Book Chapters

1. **Gaynon MW**, Schimek, RA: Down's Syndrome: A Ten Year Study. Annals of Ophthalmology. 1977; 9:1493-1497
2. Mark DB, **Gaynon MW**. Trauma-induced Endophthalmitis Caused by Acinetobacter Anitratus. British Journal of Ophthalmology. 1983;67:124-126
3. Susal AL, **Gaynon MW**, Walker JT. Linear Array Multiple Transducer Ultrasonic Examination of the Eye. Ophthalmology. 1983;90:266-271
4. **Gaynon MW**. Integrated Projection of Fundus Photographs During Macular Photocoagulation. Archives of Ophthalmology. 1984;102:464-465
5. Chou S, Dylewski JS, **Gaynon MW**, Egbert PR, Merigan TC. Effect of Alpha Interferon on Cytomegalovirus Retinitis in Immunosuppressed Hosts. Antimicrobial Agents and Chemotherapy. 1984;25:25-28

6. **Gaynon MW**, Boldrey E, Strahlman E, Fine SL. Retinal Neovascularization and Ocular Toxoplasmosis. American Journal of Ophthalmology. 1984;98:585-589
7. **Gaynon MW**, Johnson F, Singh T, Lauber S. Sustained Release of Fluorouracil by Ethylene Vinyl Acetate Copolymer in a Fibroblast Model of Proliferative Vitreoretinopathy. in Neetens, A., (editor), Modern Concepts in Vitreo-Retinal Diseases, Antwerp, University of Antwerp Press, 1985, pp 331-332
8. **Gaynon MW**, Hirose T, Schepens CL. Four Port Bimanual Vitrectomy. Archives of Ophthalmology, 1986;104:1088-1089
9. Dorfman LJ, **Gaynon MW**, Ceranski J, Louis AA, Howard JE. Visual Electrically Evoked Potentials: Evaluation of Ocular Injuries. Neurology. 1987;37:123-128
10. Heller J, Ng SY, Penhale BK, Fritzingler BK, Sanders LM, Burns RA, **Gaynon MW**, Bhosale SS. Use of Poly(Ortho Esters) for the Controlled Release of 5-Fluorouracil and a LHRH Analog. Journal of Controlled Release, 1987;6:217-224 DOI: 10.1016/0168-3659(87)90078-2
11. Snady-McCoy LC, Buzney SM, Bishara SA, **Gaynon MW**. Five Fluorouracil Buckles and Retinal Pigment Epithelium (RPE) Proliferation In Situ. in Freeman H.M. & Tolentino F.I. (editors), Proliferative Vitreoretinopathy (PVR), New York, Springer-Verlag. 1988, pp 134-139 DOI: 10:1007/978-1-4612-3910-9_18
12. **Gaynon MW**, Koh K, Marmor MF, Frankel LR. Retinal Folds in the Shaken Baby Syndrome. American Journal of Ophthalmology. 1988;106:423-425
13. Kelly LD, **Gaynon MW**. Bacteroides Fragilis Endophthalmitis: A Case Report. Canadian Journal of Ophthalmology. 1990;25(4):208-209
14. **Gaynon MW**. Retinopathy of Prematurity. Pediatrician (S. Karger, publisher). 1990;17(3):127-133
15. **Gaynon MW**, Stevenson DK, Sunshine P, Fleisher BE. Supplemental Oxygen and Light for Prethreshold Retinopathy of Prematurity. in Shapiro MJ, Biglan, AW Miller, MM, (editors), Retinopathy of Prematurity, Kugler Publications, Amsterdam/New York, 1995; pp137-138
16. **Gaynon MW**, Stevenson DK, Sunshine P, Fleisher BE, Landers MB. Supplemental Oxygen May Decrease Progression of Prethreshold Disease to Threshold Retinopathy of Prematurity. Journal of Perinatology. 1997;17(6):434-438
17. **Gaynon MW**. Retinal Surgery. In Jaffe, RA, Samuels, SI, (editors), Anesthesiologist's Manual of Surgical Procedures, Second Edition. Lippincott, Williams & Wilkins, Philadelphia, Baltimore, New York, 1999, pp 112-116
18. **Gaynon MW**, Stevenson DK. What Can We Learn From STOP-ROP and Earlier Studies? Pediatrics. 2000;105(2):420-421

19. Shaik S, Fishman ML, **Gaynon M**, Alcorn D. Diffuse Unilateral Hemorrhagic Retinopathy Associated with Perinatal Strangulation. A Clinicopathologic Report. *Retina*. 2001;21(3):252-255
20. **Gaynon MW**. Rethinking STOP-ROP. Is it worthwhile trying to modulate excessive VEGF levels in prethreshold eyes by systemic intervention? The role of oxygen, light adaptation state and anemia in prethreshold ROP. *Retina* 26:S18–S23, 2006
21. Jain AK, **Gaynon M**. Images in clinical medicine. Macular hemorrhage from bungee jumping. *N Engl J Med*. 2007 Jul 19;357(3):e3
22. Charalel R, Jain A, Rachakonda L, **Gaynon M**. Visual Disturbance as Initial Presentation of Hairy Cell Leukemia. *Eur J Ophthalmol* 2009;19(2):318-320
23. Sun Y, Ng JK, **Gaynon MW**. Pseudoduplication of the Optic Disc. *Retinal Cases & Brief Reports* 2011;5(2):144-145
24. Lad EM, Lad SP, Ung C, Jain A, Steinberg GK, **Gaynon MW**. Complete visual recovery after incipient CRAO due to ocular hypoperfusion in a patient with Moyamoya disease. *Retina Cases & Brief Reports* 2013;7(3):248-251
25. Paulus YM, Alcorn DM, **Gaynon MW**, Moshfeghi DM. Peripheral avascular retina in a term male neonate with microvillus inclusion disease and pancreatic insufficiency. *Ophthalmic Surg Lasers Imaging Retina* 2015;46(5):589-591
26. Rahimy E, **Gaynon MW**, Paulus YM, Alexander JL, Mansour SE. Potentially reversible effect of niacin therapy on edema from retinal vein occlusion. *JAMA Ophthalmol*. 2016;134(7):839-840
27. **Gaynon MW**, Paulus YM, Rahimy E, Anderson JL, Mansour SE. Effect of oral niacin on central retinal vein occlusion. *Graefes Arch Clin Exp Ophthalmol*. 2017 Jun;255(6):1085-1092
28. Wood EH, Powers MA, Sanislo SR, **Gaynon MW**. Regarding "Advances of optical coherence tomography in myopia and pathologic myopia". *Eye (Nature)* 2017 Jul;31(7):1114-1115
29. **Gaynon MW**, Wood EH, Powers MA, Sanislo SR. Correspondence: (On the etiology of dome-shaped macula with serous retinal detachment). *Retina* 2018 May;38(5):e36-e37
30. **Gaynon MW**, Wong RJ, Stevenson DK, Sunshine P. Prethreshold Retinopathy Of Prematurity: VEGF inhibition without VEGF inhibitors. *Journal of Perinatology* 2018 July 25 doi: 10.1038/s41372-018-0177-9 [Epub ahead of print]

Abstracts, CME Accredited Lectures and Miscellaneous

1. **Gaynon MW**. The Effect of Magnesium Pemoline on the Incorporation of Long Term Memory in the Rat. (Honors thesis, Kenyon College, 1968)
2. **Gaynon MW**. The Owl Monkey in Ophthalmic Research. Annual Staff Conference, Department of Ophthalmology, University of North Carolina, Dec. 4, 1971.
3. Schimek RA, **Gaynon MW**. Down's Syndrome, A Ten Year Study. *Transactions of the American Academy*

- of Ophthalmology and Otolaryngology. 1976;81(Suppl):157
4. **Gaynon MW**, Schimek RA. Down's Syndrome. Wilmer Residents' Association Annual Meeting, Johns Hopkins University, Baltimore, MD, April 1976
 5. Susal AL, **Gaynon MW**, Walker JT. Dynamic Ultrasound Diagnosis: Adding the Time Dimension. Ophthalmology. 1982;89(Suppl):187
 6. **Gaynon MW**. Subclassification of and Cryotherapy for Acute Proliferative Stage Three Retinopathy of Prematurity. ARVO. Investigative Ophthalmology and Visual Science. 1983;24(Suppl):113
 7. **Gaynon MW**. Macular Function Testing. Western Journal of Medicine. 1984;140:273
 8. **Gaynon MW**, Boldrey, E, Strahlman, E, Fine, SL. Retinal Neovascularization and Ocular Toxoplasmosis. West Coast Retinal Study Club Annual Meeting, February 18, 1984
 9. **Gaynon MW**. Growth Suppression of Intravitreal Fibroblasts by a Single Dose of 5-FU Incorporated into a Scleral Buckle. ARVO. Investigative Ophthalmology and Visual Science. 1984;25(Suppl):271
 10. **Gaynon MW**. Laser Safety Procedures. Course: Applications of Lasers In Ophthalmology. Zweng Memorial Retinal Research Foundation and Stanford University. January 30, 1986
 11. **Gaynon MW**. Sustained Release of Fluorouracil by Ethylene Vinyl Acetate Copolymer in a Fibroblast Model of Proliferative Vitreoretinopathy. Applications of Lasers in Ophthalmology. Zweng Memorial Retinal Research Foundation and Stanford University. January 31, 1986
 12. **Gaynon MW**, Monroe F, Singh T, Lauber S. Ethylene Vinyl Acetate Copolymer Drug Delivery System for the Sustained Release of Fluorouracil and Fluorouridine in a Fibroblast Model of Proliferative Vitreoretinopathy. ARVO. Investigative Ophthalmology and Visual Science. 1986;27(Suppl):187
 13. **Gaynon MW**, Schepens CL, Hirose TH, Four Port Bimanual Vitrectomy. Vitreous Society Annual Meeting, December 3-6, 1986
 14. **Gaynon MW**. Proportional Pneumatic Scissors Driver. West Coast Retina Study Club Annual Meeting. San Francisco, California, March 17, 1988
 15. **Gaynon MW**. Modified Illumination System for

- Reduction of Operating Microscope Retinal Toxicity.
ARVO. Investigative Ophthalmology and Visual Science.
1988;29(Suppl):413
16. **Gaynon MW.** What's New in Vitrectomy Technique and Instrumentation. Ophthalmology Update Course, Stanford University, June 4, 1988
 17. **Gaynon MW.** Preservation of the Anterior Lens Capsule During Lensectomy-Vitrectomy. Vitreous Society Annual Meeting, Dec 3, 1988
 18. **Gaynon MW.** Update in Vitreoretinal Surgery. Ophthalmology Update Course, Stanford University, April 8, 1989
 19. **Gaynon MW.** Backlit Projection of Digital Angiogram Frames into the Laser Slit Lamp During Macular Photocoagulation. ARVO. Investigative Ophthalmology and Visual Science. 1990;31(Suppl):281
 20. **Gaynon MW.** Update in Vitreoretinal Surgery. Ophthalmology Update Course, Stanford University, June 9, 1990
 21. **Gaynon MW, Heller J.** Sustained Release of Antimetabolites (Fluorouracil) and Antivirals (Ganciclovir) from Poly (Ortho Ester)Polymer. Retina Society Annual Meeting, Key Largo, Florida, October 4, 1990.
 22. **Gaynon MW, Heller J.** Sustained Release of Fluorouracil and Ganciclovir from Poly (Ortho Esters). Vitreous Society Annual Meeting, January 22, 1991
 23. **Gaynon MW, Heller J, Wuthrich P.** Sustained Release of Ganciclovir from Poly (Ortho Esters). ARVO. Investigative Ophthalmology and Visual Science. 1991;32(Suppl):883
 24. **Gaynon MW, Trautman M, Stevenson DK, Sunshine P.** Complications of Cryotherapy for Threshold Stage 3+ Retinopathy of Prematurity. AAO Meeting. Ophthalmology. 1991;98:(Suppl)168
 25. **Gaynon MW, Stevenson, DK.** Supplemental Oxygen May Reduce the Severity of Stage 3+ Retinopathy of Prematurity. Retina Society Annual Meeting, Quebec, Canada, September 14, 1991
 26. **Gaynon MW.** Supplemental Oxygen and Photopic Lighting May Reduce Progression of Prethreshold Stage 2+ or 3+ Retinopathy of Prematurity to Threshold. Conference at the Doheny Eye Institute, USC, Los Angeles, CA, February 22, 1992
 27. **Claiborne D, Gaynon MW.** Fluoresceinated Dextrans as Markers of Retinal Neovascular Membranes. ARVO. Investigative Ophthalmology and Visual Science. 1992;33(Suppl):1082
 28. **Gaynon MW.** Supplemental Oxygen and Photopic Lighting May Reduce Progression of Prethreshold Stage 2+ to 3+ ROP

- to Threshold Levels. AAO Meeting. Ophthalmology. 1993;100(Suppl):77
29. **Gaynon MW**, Stevenson DK, Sunshine P, Fleisher BE. Supplemental Oxygen and Light for Prethreshold Retinopathy of Prematurity. International Conference on Retinopathy of Prematurity, Chicago, IL November 18-19, 1993
 30. **Gaynon MW**. Oxygen Supplementation for Prethreshold Retinopathy of Prematurity. Twenty-fifth Anniversary of the Retinal Vascular Center, Wilmer Institute, Johns Hopkins University. Sundance, Utah, August 24, 1995
 31. **Gaynon MW**. Oxygen Saturation Levels and the Rate of Conversion of Prethreshold to Threshold ROP. Schepens International Society Meeting. Boston, MA, June 14, 1997
 32. **Gaynon MW**, Stevenson DK, Sunshine P, Fleisher B. Oxygen Saturation Levels and the Rate of Conversion of Prethreshold to Threshold Retinopathy of Prematurity. Retina Society Annual Meeting, Vancouver, Canada, September 8, 1997
 33. **Gaynon MW**. Ethylene Vinyl Acetate Copolymer Drug Delivery System for the Sustained Release of Fluorouracil in a Fibroblast Model of Proliferative Vitreoretinopathy. 2nd International Symposium on Experimental and Clinical Ocular Pharmacology and Pharmaceutics. Munich, Germany, September 11-14, 1997
 34. **Gaynon MW**. Various Lectures on macular degeneration, retinopathy of prematurity and sustained release drug delivery systems. 1997 Shanghai International Vitreoretinal Symposium. Shanghai Medical University, Shanghai, China, November 17-20, 1997
 35. **Gaynon MW**. Supplemental Oxygen in the Prevention of Retinopathy of Prematurity. Vitreoretinal Update 1999, American Academy of Ophthalmology. Orlando, Florida, October 23, 1999
 36. **Gaynon MW**. Laser for Retinopathy of Prematurity - How To Avoid Anterior Segment Ischemia. Retina - Dawn of the New Millenium. Jackson Hole, WY, June 9-12, 1999
 37. **Gaynon MW**. Laser for Retinopathy of Prematurity - How to Avoid Anterior Segment Ischemia. Retina Society Annual Meeting, Maui, HI, December 1-4, 1999
 38. Hirose T, **Gaynon MW**, Hemo I. Symposium: Retinopathy of Prematurity - Indications for Surgical Interventions and Results. Mediterranean Ophthalmological Society Congress and Michaelson Symposium. Jerusalem, Israel, May 22, 2000
 39. **Gaynon MW**. Lectures on New Treatments for Age Related Macular Degeneration and Retinopathy of Prematurity. Beijing, Qindao and Shanghai, China, June 18-25, 2000
 40. **Gaynon MW**. Overtreatment of ROP: What Can Happen and How to Avoid It. Vitreoretinal Update 2000, American Academy of Ophthalmology. Dallas, TX October 21, 2000

41. **Gaynon MW.** Lectures on Retinopathy of Prematurity and other topics. Shanghai and Wenzhou, China, March 17-22, 2001.
42. Madan A, **Gaynon MW.** Effect of Higher Levels of Supplemental Oxygen on the Conversion Rate of Prethreshold Retinopathy of Prematurity (ROP) to Threshold Disease. ARVO, Poster # 3675, April 29-May 4, 2001
43. **Gaynon MW,** Ryu S. Lipid Lowering Doses of Niacin as a Potential Treatment for Nonischemic Central and Hemiretinal Vein Occlusions. Poster. Retina Society / Vitreous Society Retina Congress, San Francisco, Sept 28-Oct 2, 2002
44. **Gaynon MW.** Should People with Soft Drusen Sleep with a Nightlight? (The Role of Light Adaptation in Retinal Oxygen Consumption). Western Retina Study Club, March 14-15, 2003
45. **Gaynon MW.** High Dose Niacin as a Potential Vasodilator in the Treatment of Nonischemic Central and Hemiretinal Vein Occlusion. ARVO, Poster 4062, May 4-9, 2003
46. **Gaynon MW.** High Dose Niacin as a Potential Vasodilator in the Treatment of Nonischemic Central and Hemiretinal Vein Occlusion. VIIth Michaelson Symposium on Ocular Circulation and Neovascularization. Paris, France Sept 22-24, 2003
47. **Gaynon MW.** Should People with ROP, Diabetes Mellitus or ARMD Sleep with a Nightlight? The Relationship of Light Adaptation State to Retinal Oxygen Consumption. 3rd International Symposium on ROP. Anaheim, California November 13th, 2003
48. **Gaynon MW.** Lectures on Retinopathy of Prematurity, Retinal Vein Occlusions and other topics. Given at (1) The 2nd Congress of Prematurity and Pediatric Ophthalmology and The Vitreoretinal Institute of Shanghai Medical College, Fudan University, (2) Beijing Medical University and (3) Shandong Eye Institute and Hospital, Qingdao University, Qingdao, China. April 4-9, 2004
49. **Gaynon MW.** Should People with ROP, Diabetes Mellitus or ARMD Sleep with a Nightlight? Poster. Retina Society Annual Meeting, Baltimore, Sept 30-Oct 3, 2004
50. **Gaynon MW.** Reconsidering STOP-ROP. Is it worthwhile trying to modulate excessive VEGF levels in prethreshold eyes by systemic intervention? The role of oxygen, light adaptation state and anemia in prethreshold ROP. Association of Pediatric Retinal Surgeons (APRS), Duck Key, Florida Jan 27-30, 2005
51. **Gaynon MW.** Lectures on Management of Retinal Vein Occlusions and Enhancement of Transscleral Drug Transfer with Subtenons Sustained Drug Delivery Systems. Shanghai Vitreoretinal Symposium, Shanghai, China, April 8-9, 2005
52. **Gaynon MW.** Facilitation of Sustained Release Transscleral Drug Delivery by Surface Diathermy. ARVO, Poster #500, May 1, 2005
53. **Gaynon MW.** Sustained Drug Delivery Systems for the eye. Lecture at Schepens International Society 10th Biennial Symposium, Vancouver, British Columbia, Canada June 16-19- 2005
54. **Gaynon MW.** High Dose Niacin and Topical Prednisolone Acetate for the Treatment of Nonischemic CRVO, HRVO and BRVO. The Retina Society, Annual Scientific Meeting, San Diego, CA September 15-18, 2005
55. Persaud T, **Gaynon MW,** Tsong JW, Mansour SE. Effects of High Dose Oral Niacin Intake on Central Retinal Vein Occlusion. ARVO Poster 508, April 30-May 4, 2006

56. **Gaynon MW.** High Dose Niacin (Nicotinic Acid) and Topical Prednisolone Acetate for Nonischemic CRVO, HRVO and BRVO. ARVO Poster 5179, April 30-May 4, 2006
57. **Gaynon MW.** Should People With ROP, Diabetes Mellitus or ARMD Sleep With a Nightlight? The Relationship of Light Adaptation State to Retinal Oxygen Consumption. ARVO Poster 5122, May 10, 2007
58. **Gaynon MW.** High dose Niacin (Nicotinic Acid) and topical Prednisolone Acetate for nonischemic CRVO, HRVO and BRVO aimed at enhancing collateral vessel formation and maintaining choriocapillaris integrity. ARVO Poster 4712, May, 2010
59. Paulus, YM, **Gaynon MW**, Leath JD, Mansour SM. High dose oral Niacin as a treatment for Retinal Vein Occlusions. ARVO Poster, May, 2012
60. Paulus, YM, Rahimy E, Alexander JL, Mansour SE, **Gaynon MW.** Oral Niacin as a Modulator for Central Retinal Vein Occlusions. Presentation at the Retina Society Annual Meeting, San Diego, CA September 15, 2016
61. **Gaynon MW**, Rahimy E, Paulus YM, Mansour S, Alexander JL. Niacin (nicotinic acid) may reduce the risk of iris neovascularization in CRVO, and may show reversibility of effect when discontinued. ARVO Poster, May 2017
62. **Gaynon MW.** ROP - Guided Embryology for Retinal Vessels. ARVO Poster, May 1, 2018