

## **Christopher N. Singh, MD, FACS**

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### **EDUCATION**

- 1995–1999 Bachelor of Science with High Honors, Michigan State University, East Lansing, MI. Major: Human Biology.  
1999–2003 Doctor of Medicine with Distinction in Research, Saint Louis University School of Medicine, St. Louis, MO.

### **POSTGRADUATE TRAINING**

- 2003–2004 Transitional Internship, Forest Park Hospital, Saint Louis University School of Medicine, St. Louis, MO.  
2004–2007 Residency, Department of Ophthalmology, University of Washington, Seattle, WA.  
2007–2009 Vitreoretinal Fellowship, Kresge Eye Institute, Wayne State University, Detroit, MI.

### **FACULTY APPOINTMENTS**

- 2009–2010 Assistant Clinical Professor, Department of Ophthalmology, University of Kansas, Kansas City, KS  
2017– Section Chief, Ophthalmology, Genesys Regional Medical Center, Grand Blanc, MI

### **BASIC SCIENCE RESEARCH EXPERIENCE**

- 1999 Effect of CFTR activation on extracellular pH in NIH/3T3 Mouse Fibroblasts and C127 Epithelial Cells, with Douglas B. Luckie, PhD, Department of Physiology, Michigan State University, East Lansing, MI.  
2000 Effect of membrane sterols on rhodopsin bleaching kinetics and thermal stability, with Steven Fliesler, PhD, Department of Ophthalmology, Saint Louis University, St. Louis, MO.  
2007–2008 Toll-like receptors and retinal tolerance induction, with Fu-shin Yu, PhD and Tamer Mahmoud, MD, PhD, Kresge Eye Institute, Wayne State University, Detroit, MI.

### **HONORS AND AWARDS**

- 1996–1999 Honors College, Michigan State University  
1997–1999 Alpha Epsilon Delta Premedical Honor Society  
1999 Graduated with High Honors, Michigan State University  
2003 Distinction in Research, Saint Louis University School of Medicine  
2008 NEI Travel Grant, Association for Research in Vision and Ophthalmology  
2013 Fellow, American College of Surgeons

## **CERTIFICATIONS**

Diplomate, American Board of Ophthalmology (2009)

## **EMPLOYMENT**

1997–1999 Teaching Assistant for cell and molecular biology, Lyman Briggs School, Michigan State University, East Lansing, MI.  
1998 Research Assistant, varicella vaccine informational video, Michigan State University College of Human Medicine, East Lansing, MI.  
2009–2010 Physician, Retina Associates, PA, Shawnee Mission, KS  
2011–2012 Physician, Vitreoretinal Associates of Washington, Seattle, WA  
2012– Physician, Vitreoretinal Specialists, Grand Blanc, MI

## **CURRENT MEDICAL LICENSURE**

Michigan

## **PROFESSIONAL MEMBERSHIPS**

American Academy of Ophthalmology  
American Society of Retina Specialists  
Michigan Society of Eye Physicians and Surgeons  
Genesee County Medical Society  
Genesys PHO  
McLaren Physician Partners  
US Retina  
Associate Fellow, American College of Surgeons

## **VOLUNTEER EXPERIENCE**

1993 McLaren Hospital pharmacy volunteer, Flint, MI.  
1996 Sparrow Hospital emergency room volunteer, Lansing, MI.  
1996 Sparrow Hospital orthopedic floor volunteer, Lansing, MI.  
1999, 2002 Health Resources Center, student volunteer, St. Louis, MO.

## **PUBLICATIONS**

Luckie DB, **Singh CN**, Wine JJ, Wilterding JH. CFTR Activation Raises Extracellular pH of NIH/3T3 Mouse Fibroblasts and C127 Epithelial Cells. Journal of Membrane Biology 2001;179(3):275–84.

Sullivan SR, Ahmadi AJ, **Singh CN**, Sires BS, Engrav LH, Gibran NS, Heimbach DM, Klein MB. Elevated Orbital Pressure: Another Untoward Effect of Massive Resuscitation after Burn Injury. Journal of Trauma. 2006;60(1):72–76.

**Singh CN**, Thakker M, Sires BS. Pyogenic Granuloma Associated With Chronic Actinomyces Canaliculitis. Ophthalmic Plastic and Reconstructive Surgery. 2006;22(3):224–5.

Mudumbai RC, **Singh CN**, Youssef PY. 'Brown Syndrome'. In: Roy FH, Fraunfelder FT, Fraunfelder FW (eds), Current Ocular Therapy. 6<sup>th</sup> edition. Elsevier. 2008:407–8.

**Singh CN**, Youssef PY, Saperstein DA. 'Central Serous Chorioretinopathy'. In: Roy FH, Fraunfelder FT, Fraunfelder FW (eds), Current Ocular Therapy. 6<sup>th</sup> edition. Elsevier. 2008:619–20.

**Singh CN**, Klein MB, Sullivan SR, Sires BC, Hutter CM, Rice K, Amadi AJ. Orbital Compartment Syndrome in Burn Patients. Ophthalmic Plastic and Reconstructive Surgery. 2008;24(2):102–6.

**Singh CN**, Tewari A, Shah G. Pearls for vitreoretinal surgery through presbyopia-correcting IOLs. Review of Ophthalmology. 2008;15(3):70–1.

**Singh CN**, Saperstein DA. Combination Treatment with Reduced-Fluence Photodynamic Therapy and Intravitreal Injection of Triamcinolone for Subfoveal Choroidal Neovascularization in Macular Degeneration. Retina. 2008;28(6):789–93.

**Singh CN**, Tewari A. Retinal surgery following refractive surgery. Review of Ophthalmology. 2008;15(10):71–3.

Tewari A, Elliott D, **Singh CN**, Garcia-Valenzuela E, Ito Y, Abrams GW. Changes in retinal sensitivity from retained subretinal perfluorocarbon liquid. Retina. 2009;29(2):248–50.

Shukairy A, Patel C, **Singh CN**, Puklin J, Mahmoud TH. Shunt Vessels and Outcomes in Patients With CRVO Treated With Bevacizumab. Retina Today. 2009;4(2):59–61.

**Singh CN**, Grieco VS, Kalina RE. Metastatic cutaneous melanoma to the ciliary body in familial atypical mole-melanoma (FAM-M) syndrome. Retinal Cases & Brief Reports. 2009;3(2):150–1.

**Singh CN**. 'What Should I Do When I See a Patient With One or More Intraretinal Hemorrhages?' In: Fekrat S, Moshfeghi D, Elliott D (eds), Curbside Consultation in Retina. Slack. 2009:47–9.

**Singh CN**, Tewari A. Supplements, Lifestyle and AMD: What We Know Today. Review of Ophthalmology. 2009;16(10):55–8.

Kumar A, **Singh CN**, Glybina IV, Mahmoud TH, Yu FSX. Toll-like Receptor 2 Ligand-Induced Protection against Bacterial Endophthalmitis. Journal of Infectious Diseases. 2010;201(2):255–63.

**Singh CN**, Iezzi R, Mahmoud TH. Intraocular pressure instability after 23-gauge vitrectomy. Retina. 2010 Apr;30(4):629–34.

## **PRESENTATIONS**

**Singh CN**, Saperstein DA. Exudative ARMD: Evaluating Combination Therapy using Reduced Fluence PDT and Intravitreal Triamcinolone Injection. Washington Academy of Eye Physicians and Surgeons 2005 Scientific Meeting. Tacoma, Washington, October 1, 2005.

**Singh CN**, Herlihy EP, Mudumbai R. A Woman with Recurrent Pain and Diplopia. North American Neuro-Ophthalmology Society, Walsh Session. Tucson, Arizona, February 26, 2006.

Sullivan SR, Ahmadi AJ, **Singh CN**, Sires BS, Engrav LH, Gibran NS, Heimbach DM, Klein MB. Elevated orbital pressure: Another untoward effect of massive resuscitation after burn injury. 38th Annual Meeting of the American Burn Association. Las Vegas, Nevada, April 4 – 7, 2006. Abstract: Journal of Burn Care and Rehabilitation 2006; 27(2): S80.

**Singh CN**, Saperstein DA. Reduced fluence photodynamic therapy and intravitreal triamcinolone for exudative age related macular degeneration. Resident Alumni Day, Department of Ophthalmology, University of Washington. Seattle, Washington, June 17, 2006.

**Singh CN**, Klein MB, Sullivan SR, Sires BS, Hutter CM, Rice K, Amadi AJ. Orbital Compartment Syndrome in Burn Patients. American Academy of Ophthalmology, Atlanta, Georgia, November 11 – 14, 2006. American Academy of Ophthalmology Final Program 2006.

**Singh CN**, Klein MB, Sullivan SR, Sires BS, Hutter CM, Rice K, Amadi AJ. Orbital Compartment Syndrome in Burn Patients. Resident Alumni Day, Department of Ophthalmology, University of Washington. Seattle, Washington, June 16, 2007.

**Singh CN**, Iezzi R, Mahmoud TH. Outcomes of 23-gauge pars plana vitrectomy for posterior segment disease. 26<sup>th</sup> Annual Meeting of the American Society of Retina Specialists. Maui, Hawaii, October 11–15, 2008. Abstract: Final Program; 55.

Shukairy A, Patel C, **Singh CN**, Puklin JE, Mahmoud TH. Correlation Between the Development of Shunt Vessels and Treatment Outcomes in Patients with Central Retinal Vein Occlusion Treated with Bevacizumab. 26<sup>th</sup> Annual Meeting of the American Society of Retina Specialists. Maui, Hawaii, October 11–15, 2008. Abstract: Final Program; 46.

Kumar A, **Singh CN**, Mahmoud TH, Yu FSX. Toll-like Receptor 2 Agonist Pretreatment Protects Mice from Staphylococcus Aureus-induced Endophthalmitis. Association for Research in Vision and Ophthalmology. Fort Lauderdale, Florida, May 3 – May 7, 2009. Abstract 4287.

**Singh CN**. Vitamins and Nutrition in Age-Related Macular Degeneration. 23<sup>rd</sup> Annual Kansas City Studies in Eye Education, Kansas City Society of Ophthalmology and Otolaryngology. Overland Park, Kansas, January 8, 2010.

**Singh CN**. Treatment of Retinal Vein Occlusion. Kansas EyeCon 2010, Kansas City, Missouri, May 7 – 8, 2010.

**Singh CN**. Central Serous Chorioretinopathy. Washington Academy of Eye Physicians and Surgeons, Ophthalmic Medical Personnel Program, Seattle,

Washington, March 18, 2011.

**Singh CN.** Dry Age-Related Macular Degeneration: Imaging and Clinical Trials. Ophthalmic Photographers' Society, Seattle, Washington, May 15, 2011.

**Singh CN.** Systemic Safety with Anti-VEGF Agents. King County Optometric Society, Seattle, Washington, September 13, 2011.

**Singh CN.** Systemic Safety with Anti-VEGF Agents. Washington Academy of Eye Physicians and Surgeons, Ophthalmic Medical Personnel Program, Seattle, Washington, March 23, 2012.

#### **POSTER PRESENTATIONS**

**Singh CN, Saperstein DA.** Photodynamic Therapy and Intravitreal Triamcinolone Acetonide for Age Related Macular Degeneration. Resident Alumni Day, Department of Ophthalmology, University of Washington. Seattle, Washington, June 4, 2005.

**Singh CN, Saperstein DA.** Combination Therapy Using Reduced Fluence Photodynamic Therapy and Intravitreal Kenalog for Choroidal Neovascularization in Macular Degeneration. Association for Research in Vision and Ophthalmology. Fort Lauderdale, Florida, April 30 – May 4, 2006. Abstract 2166/B745.

**Singh CN, Amadi AJ, Sires BS, Mudumbai R.** Retroseptal Steroids for Orbital Pseudotumor. Association for Research in Vision and Ophthalmology. Fort Lauderdale, Florida, May 6 – May 10, 2007. Abstract 946/B921.

Richani K, **Singh CN**, Schlachter D, Kim C, Puklin J, Abrams GW, Mahmoud TH. Effect of Anti-VEGF Therapy on Choroidal Neovascular Membrane Secondary to Causes Other than Age-related Macular Degeneration. Association for Research in Vision and Ophthalmology. Fort Lauderdale, Florida, April 27 – May 1, 2008. Abstract 294/A603.

**Singh CN, Tewari A, Shah GK.** Challenges With Pars Plana Vitrectomy Through Presbyopia Correcting Intraocular Lenses. Association for Research in Vision and Ophthalmology. Fort Lauderdale, Florida, April 27 – May 1, 2008. Abstract 5984/A449.

**Singh CN, Yonker J, Mahmoud TH.** Combined phacoemulsification, posterior chamber lens implantation, pars plana vitrectomy, pars plana tube, and Retisert in non-infectious panuveitis. 26<sup>th</sup> Annual Meeting of the American Society of Retina Specialists. Maui, Hawaii, October 11–15, 2008. Abstract: Final Program; 142.

Patel CC, Apple J, **Singh CN, Tewari A.** Outcomes of 23 Gauge Vitrectomy with Internal Limiting Membrane Peel for Recalcitrant Diabetic Macular Edema. Association for Research in Vision and Ophthalmology. Fort Lauderdale, Florida, May 3 – May 7, 2009. Abstract 4209/A568.

Shukairy A, Patel C, **Singh CN**, Puklin J, Mahmoud TH. Correlation Between the Development of Shunt Vessels and Treatment Outcomes in Patients with Retinal Vein Occlusion Treated with Bevacizumab. Fort Lauderdale, Florida, May 3 – May 7, 2009. Abstract 5422/A373.

**Singh CN**, Tewari A. Vitreoretinal Surgery Following Refractive Surgery. Association for Research in Vision and Ophthalmology. Fort Lauderdale, Florida, May 3 – May 7, 2009. Abstract 6057/D741.