

Curriculum Vitae and Bibliography

PART I: General Information

Name: Jason Comander

Date Prepared: November 2012

Office Address: 243 Charles Street, Room 501B, Boston MA 02114

Education:

Sept. 1993 - June 1997	A.B. Harvard College, Cambridge, MA
Sept. 1997- June 2006	M.D. Harvard Medical School, Boston, MA
Sept. 1999 - June 2005	Ph.D. Harvard Medical School, Experimental Pathology
July 2012 - August 2012	Program in Clinical Effectiveness, Harvard School of Public Health

Hospital or Affiliated Institution Appointments:

July 2006 – June 2007	Clinical Fellow – Medicine Intern, Brigham & Women’s Hospital
July 2007 – June 2010	Resident in Ophthalmology at the Harvard Ophthalmology Residency, Massachusetts Eye and Ear Infirmary
July 2010 – June 2012	Clinical Fellowship in Vitreoretinal Surgery, Massachusetts Eye and Ear Infirmary
July 2012-	Instructor in Ophthalmology, Harvard Medical School, Assistant Surgeon, Massachusetts Eye & Ear Infirmary, NIH K12 Mentored Clinical Scientist Development Program Awardee

Professional Societies:

1999-	Massachusetts Medical Society, member
1999-	American Association for the Advancement of Science, member

- 1991-4,2009- Association for Research in Vision and Ophthalmology
- 2002-2006 National Association for Vascular Biology, member
- 2007- American Academy of Ophthalmology

Awards and Honors:

- 1993 Finalist, Presidential Scholars
- 1997 John Harvard Scholarship
- 1998 Medical Scientist Training Program Scholarship for M.D./Ph.D. Program at Harvard Medical School
- 2005 Massachusetts Medical Society Information Technology Award
- 2009 Heed Foundation Retreat for academic ophthalmology, attendee (out of 19 nationally)
- 2012 NIH K12 Mentored Clinical Scientist Development Program Awardee

Part II: Bibliography

Original Articles:

- 1) Sasoh M, Parel J-M, Fabrice Manns, Nose I, **Comander J**, Smiddy WE. Quantification of Holmium: YAG and Thulium : YAG Laser-Induced Scleral Shrinkage for Buckling Procedures. *Ophthalmic Surg Lasers* 1998; 29(5):410-421.
- 2) Robinson DS, Parel J-M, Denham DB, Gonzales-Cirre X, Manns F, Milne PJ, Schachner RD, Herron AJ, **Comander J**, Hauptman G. Interstitial Laser Hyperthermia Model Development for Minimally Invasive Therapy of Breast Carcinoma. *J Am Coll Surg* 1998; 186:284-292.
- 3) Parel JM, **Comander J**. Mathematical modeling of gel injection adjustable keratoplasty (GIAK). *An Inst Barraquer* 1995; 25:271-279.
- 4) Garcia-Cardena G, **Comander J**, Anderson KR, Blackman BR, Gimbrone MA Jr. Biomechanical activation of vascular endothelium as a determinant of its functional phenotype. *Proc Natl Acad Sci U S A*. 2001 Apr 10;98(8):4478-85.

5) **Comander J**, Weber GM, Gimbrone MA, Jr. and Garcia-Cardena G "Argus--a new database system for Web-based analysis of multiple microarray data sets." *Genome Res.* 2001 11(9): 1603-10.

6) Aach J, Bulyk ML, Church GM, **Comander J**, Derti A, Shendure J. Computational comparison of two draft sequences of the human genome. *Nature.* 2001 Feb 15;409(6822):856-9.

7) Garcia-Cardena G, **Comander JI**, Blackman BR, Anderson KR and Gimbrone MA. "Mechanosensitive endothelial gene expression profiles: scripts for the role of hemodynamics in atherogenesis?" *Ann N Y Acad Sci.* 2001 947: 1-6.

8) Takayama K, Garcia-Cardena G, Sukhova GK, **Comander J**, Gimbrone MA, Jr. and Libby P. "Prostaglandin E2 suppresses chemokine production in human macrophages through the EP4 receptor." *J Biol Chem.* 2002 277(46): 44147-54.

9) **Comander J***, Natarajan S*, Gimbrone MA, Jr. and Garcia-Cardena G. "Improving the statistical detection of regulated genes from microarray data using intensity-based variance estimation." *BMC Genomics.* 2004 5(1): 17. *Equal contributions

10) **Comander J**, Pineda R 2nd. Accommodating intraocular lenses: theory and practice. *Int Ophthalmol Clin.* 2010 Winter;50(1):107-17.

11) **Comander J**, Gardiner M, Loewenstein J. High-Resolution Optical Coherence Tomography Findings in Solar Maculopathy and the Differential Diagnosis of Outer Retinal Holes. *Am J Ophthalmol.* 2011 Sep;152(3):413-419.e6.

12) **Comander J**, Loewenstein J, Sobrin L. Diagnostic testing and disease monitoring in birdshot chorioretinopathy. *Semin Ophthalmol.* 2011 Jul-Sep;26(4-5):329-36.

13) Mantopoulos D, Murakami Y, **Comander J**, Thanos A, Roh M, Miller JW, Vavvas DG. Tauroursodeoxycholic acid (TUDCA) protects photoreceptors from cell death after experimental retinal detachment. *PLoS One.* 2011;6(9):e24245.

Thesis:

Ph.D. Dissertation: *Transcriptional and Functional Modulation of the Endothelial Cell Inflammatory Response by a Biomechanical Stimulus*. Advisor: Dr. Michael A. Gimbrone, Jr., Department of Pathology, Brigham and Women's Hospital and Harvard Medical School.

Proceedings:

1) Parel J-M, **Comander J**, Simon G, Takesue Y, Villain F. Mathematical model of annular keratophakia: intracorneal ring (ICR) and gel adjustable keratoplasty (GIAK). In:

J-M Parel, Q Ren (eds), Ophthalmic Technologies IV, SPIE Publishers, Bellingham WA 1994, Proc. 2126:366-375.

2) Sasoh M, Parel JM, Shen JH, Nose I, **Comander J**, Smiddy W. Laser scleral buckling: In vitro quantification for Ho: YAG and Tm : YAG lasers. In: J-M Parel, Q Ren, K Joos, (eds), Ophthalmic Technologies V, SPIE Publishers, Bellingham WA, 1995, Proc. 2393:299-305.

3) **Comander J**, Simon G, Takesue Y, Villain F, Parel J-M: Measuring ocular characteristics after gel injection adjustable keratoplasty (GIAK) in the rabbit. In: J-M Parel, Q Ren, K Joos, (eds). Ophthalmic Technologies V, SPIE Publishers, Bellingham WA, 1995, Proc. 2393:85-91.

4) **Comander J**, Parel J-M, Robinson DS, Manns F, Denham DB, Rol PO. Mathematical modeling of laser induced hyperthermia. In: J-M Parel, PO Rol, KM Joos (eds), Ophthalmic Technologies VI, SPIE Publishers, Bellingham WA, 1996, Proc. 2673:102-107.

5) Robinson DS, Parel J-M, Gonzalez-Cirre X, Denham BD, Manns F, Milne PJ, Schachner RD, Herron AJ, **Comander J**, Hauptmann G. Update of Laser Hyperthermic Treatment for Primary Breast Cancers: *Ex vivo* and *In vivo* models. In RR Anderson et al., *Lasers in Surgery: Advanced Characterization, Therapeutics and Systems VII*, SPIE 1997. Proc. #2970:605-608.

6) Robinson DS, Parel J-M, Denham DB, Manns F, Gonzalez-Cirre X, **Comander J**, Schachner R, Herron A. Interstitial hyperthermia endoablation of breast tissues: results of an experimental in-vivo pilot study. In: Rox Anderson (ed), *Lasers in Surgery: Advanced Characterization, Therapeutics, and Systems VI*. SPIE Publishers, Bellingham WA, 1996;Proc. 2671:142-144.

7) **Comander J**, Chen CS, Mannix C, Wei C. Non-invasive, continuous toxin detection in mammalian cells. Annual meeting of the Defense Advanced Research Projects Agency's MicroFluidic Molecular Systems (DARPA's MicroFlumes), 1998 (Proc.).

Abstracts:

1) **Comander J**, Simon G, Ren Q, Denham DB, Parel J-M: Temperature distribution in the cornea. ARVO Invest Ophthalmol Vis Sci., 1992;33(4):769.

2) Parel J-M, **Comander J**. Mathematical modeling of gel injection adjustable keratoplasty. Barraquer Institute X International Ophthalmology Course. Book of Abstracts, 1993, Barcelona, p. 111.

3) **Comander J**, Parel J-M, Simon G, Melgar T, Takesue Y. Suitability of the rabbit model for corneal refractive surgery. ARVO Invest Ophthalmol Vis Sci., 1993;34:1219.

4) Parel J-M, **Comander J**. Mathematical model of gel injection adjustable keratoplasty (GIAK). ARVO Invest Ophthalmol Vis Sci 1994;35(4):2024.

5) Parel JM, Simon G, Legeais JM, Renard Y, Takesue Y, **Comander J**, Lee W, Savoldelli M, Pouliquen Y. Anneaux intra-corneens injectables: Modele mathematique et resultats a trois ans. Soc Francaise d'Ophthalmologie. Book of Abstracts, 1994.

6) Parel JM, **Comander J**, Simon G. Mathematical model of intracorneal ring (ICR) and gel injection adjustable keratoplasty (GIAK) for the correction of myopia. JERMOV Abstract Book 1994: P49;p186.

7) Sasoh M, Parel J-M, Nose I, Shen J, **Comander J**, Smiddy WE. Quantification of laser scleral shrinkage for scleral buckling procedure. ARVO Invest Ophthalmol Vis Sci 1995; 36(4),S849.

8) Robinson D, Parel J-M, Denham D, Burdette E, **Comander J**, Gonzales-Cirre X: Laser stereotactic endoablation for breast cancer treatment: model development. Society of Surgical Oncology meeting, 1996.

9) **Comander J**, Kato H, Sasoh M, Nose I, Parel J- M. "IOP variations during anesthesia in rabbits", ARVO Invest Ophthalmol Vis Sci., 1996;37(3):815.

10) Gonzalez-Cirre X, **Comander J**, Manns F, Rol P, Robinson DS, Murray T, Parel J-M. Laser-induced hyperthermia for the treatment of ocular melanoma: Thermal model and feasibility. ARVO Invest Ophthalmol Vis Sci 1997;38(4):S810.

11) **Comander J**, Andreoli CM, Kiss S, Vavvas D. Intraoperative Switch to a Temporal Approach in 25 Gauge PPV: Anatomical and Visual Outcomes and Comfort Level of Trainee Surgeons. ARVO 2008

12) **Comander J**, Trichonas G, Thanos A, Koufomichali X, Morizane Y, Montezuma SR, Vavvas D. The Role of AMP-Dependent Kinase (AMPK) in Diabetic Retinopathy. ARVO 2009

13) **Comander J**, Gardiner M, Loewenstein J. High Resolution Optical Coherence Tomography Findings in Solar Maculopathy and the Differential Diagnosis of Outer Retinal Holes. ARVO 2011

14) Mantopoulos D, **Comander J**, Murakami Y, Roh M, Miller J, Vavvas D. Tauroursodeoxycholic Acid (TUDCA) Protects Photoreceptors From Cell Death During Experimental Retinal Detachment. ARVO 2011

Invention disclosures:

Fiber-Optic Delivery System for Laser Transscleral Treatment of Ocular Tumor

Parel, Manns, **Comander**, Rol, Murray, Gonzalez-Cirre
Invention Disclosure #UM97-12, submitted January 13, 1997.