

## Curriculum Vitae

### Ellen E. Anderson Penno, MD, MS, FRCSC, Diplomate ABO

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#### BIOGRAPHICAL DATA

<b>Name</b>	Ellen Elizabeth Anderson Penno		
<b>Address</b>	Western Laser Eye #209, 8555 Scurfield Drive NW Calgary, Alberta Canada	<b>Citizenship</b>	U.S.A. Canada
<b>Telephone</b>	(403) 547-9775 <a href="mailto:contact@westernlasereye.com">contact@westernlasereye.com</a>		
<b>Present rank Institution</b>	Ophthalmologist/Freelance Writer Medical Director, Western Laser Eye Associates		

#### ACADEMIC RECORD

<b>Final degree</b>	M.D.
<b>Date completed</b>	1992
<b>Specialty</b>	Ophthalmology
<b>Institution</b>	University of Minnesota, Minneapolis, MN
<b>Undergraduate</b>	Carleton College, Northfield, MN BA Honors Biology, French Studies, 1984

#### Graduate and post-doctoral

*Gimbel Eye Centre, AB. Research Fellowship July - Sept 1997*

Refractive Surgery Fellowship Sept 1997 - Aug 1998

*Sedona-Verde Valley Eye Center, Sedona, AZ. General Ophthalmologist 1996 - 1997*

*Mayo Clinic, Rochester, MN. Ophthalmology Residency 1993 - 1996*

*Hennepin County Medical Center, Minneapolis, MN. Rotating Internship 1992-1993*

*University of Minnesota, Minneapolis, MN. Clinical Laboratory Science, Immunology MS 1992*

#### Licensure, certification and boards

College of Physicians & Surgeons of Saskatchewan	September 1998	#8561
College of Physicians & Surgeons of Alberta	6 August 1998	#012039
Royal College of Physicians and Surgeons of Canada		Certified 1998
Fellow of the Royal College of Physicians and Surgeons, Canada		FRCSC 1998
Diplomat American Board of Ophthalmology		1998
College of Physicians and Surgeons, Edmonton AB Courtesy		1997-1998 #C10580

State of Arizona  
State of Minnesota

1996-1997 #24266  
1992-present License #36216

## AWARDS AND DISTINCTIONS

- 1989 Academy of Clinical Laboratory Physicians and Scientists, Young Investigator Award with Distinction
- 1984 Carleton College
- Honors in biology
  - Distinction of Senior Integrative Exercise
  - Superior Achievement in Foreign Language (French)
- 1983, 1984 National Collegiate Ski Association (NCSA) All American Cross Country Skier

## EDUCATIONAL ACTIVITIES

### Undergraduate

- 1997 - 1998 **Supervisor** Ophthalmology Clinical Clerkship Program (University of Calgary medical student collaboration)
- 1998 **Associate Instructor** American Academy of Ophthalmology (AAO) Course #408 *Prevention and management of LASIK complications* November 1998

### Postgraduate (research and clinical fellows)

- 1997 - 1998 **Supervisor** Refractive surgery fellows in research, clinic, and surgery

### Continuing medical education

- 1997 - 1998 **Instructor** Personal Professional Development - numerous PPD sessions for Gimbel Eye Centre technicians

## ADMINISTRATIVE RESPONSIBILITIES

### Departmental

- 1997 - 2000: **Director of Research** - Gimbel Eye Centre
- 2000: **Research Advisor** - Gimbel Eye Centre
- Associate Director of Research Publications** - Gimbel Eye Centre

## PROFESSIONAL ACTIVITIES

### Membership in professional and learned societies

- 1996 - 1997 Rotary International, Sedona Mid-Day Rotary
- 1996 - present International Association of Women Pilots, Sedona 99's
- 1994 - present American Academy of Ophthalmology
- 1993 - present American Medical Association

### Community service / Volunteer activities

- 1998 - 2000 *Canadian Mental Health Association* - Fund Raising, Committee volunteer. S. Barrette, Coordinator
- 1999 *Canadian Diabetes Association* "Spring tune-up" - speaker
- 1994 *American Liver Foundation* "Run for Your Livers", area representative, S. Aronson, collected per mile pledges for running the Boston marathon.

- 1989-1992 *Riverside Medical Center Hospice, Minneapolis, MN.* Grief Support Group facilitator and bereavement support. H. Everett, coordinator.
- 1988 - 1989 *People's Center Clinic, Minneapolis, MN.* Laboratory volunteer and patient advocate. T. Kidder, volunteer coordinator.
- 1988 - 1989 *University of Minnesota Variety Club Hospital, Minneapolis, MN.* Cancer support group volunteer. D. Stark, supervisor.

## RESEARCH SUPPORT

### Grants, contracts

- 2001 Gimbel Eye Foundation – Co-Investigator  
Diffuse lamellar keratitis: Treatment outcomes with topical steroids, topical non-steroidals, and systemic steroids in a rabbit model 15,000
- 1999 Gimbel Eye Foundation - Co-investigator  
Diffuse lamellar keratitis: Isolation of endotoxin sources and demonstration of their inflammatory potential in a rabbit model \$4600
- 1999 Gimbel Eye Foundation - Co-investigator  
Visual performance under scotopic conditions following LASIK and PRK \$12,430
- 1998 Gimbel Eye Foundation - Co-investigator  
*Quality of vision after clear lens extraction (Refractive Lensectomy)* \$1,130
- 1998 Gimbel Eye Foundation - Co-investigator  
*Preliminary results of a neural network engine for refractive surgery outcome research* \$1,000
- 1998 Gimbel Eye Foundation - Co-investigator  
*Variability of intraocular pressure and pulsatile ocular blood flow after the ring application in LASIK procedures* \$19,830
- 1998 Gimbel Eye Foundation - Co-investigator  
*Applanation vs Langham tonometry in pre and postoperative PRK and LASIK patients* \$19,830
- 1991 Minnesota Medical Foundation - Student Grant  
*Kinetics of suppression of corneal graft rejection by Deoxyspergualin in the Allogeneic rat model* \$1,800
- 1990 National Kidney Foundation of the Upper Midwest  
*Diabetic changes of renal tubular basement membrane laminin* \$2,000
- 1989 National Kidney Foundation of the Upper Midwest  
*Sequencing a cDNA clone of Heparan sulfate proteoglycan* \$2,500

### Research co-investigator, experience

- 1999 Gimbel Eye Centre. Isolation of endotoxin and demonstration of their inflammatory potential and treatment options in a rabbit LASIK model. D.E. Woods, PhD, R.A. Moore PhD.
- 1998 Gimbel Eye Centre. *Pre and postoperative IOP measurements in PRK and LASIK patients.* H.V. Gimbel, MD.
- 1998 Gimbel Eye Centre. *LASIK and PRK for hyperopia after RK.* H.V. Gimbel, MD.
- 1998 Gimbel Eye Centre. *Applanation vs Langham tonometry in pre and postoperative PRK and LASIK patients.* H.V. Gimbel, MD.
- 1996 Mayo Clinic. *Retrospective population-based study of the incidence of central retinal vein occlusion.* E.V. Rettig, MD, D.M. Robertson, MD (consultant).
- 1995 Mayo Clinic. *Tubulointerstitial nephritis antigen: localization of a novel corneal component by immunofluorescent and confocal microscopy.* J. Campbell, MD.
- 1991 University of Minnesota. *Rat penetrating keratoplasty: suppression of corneal transplant rejection by Deoxyspergualin.* E.J. Holland, MD.
- 1988-90 University of Minnesota. *Characterization of a novel basement membrane component and diabetic changes of renal basement membrane laminin.* M. Kleppel, PhD, A. Charonis MD, PhD, A. Michael (advisors).
- 1983-85 Carleton College. Honors Research. *Biochemistry of the glucocorticoid receptor.* J. Tymoczko, PhD (advisor).

- 1984 Immuno Nuclear Company, Stillwater, MN. *HPLC purification of synthetic peptides*. A. Lindall MD, PhD (supervisor)
- 1983 Washington University. *Enzyme kinetics of factor Xa*. C. Jackson MD (supervisor)

## PUBLICATIONS/PRESENTATIONS

### Peer reviewed manuscripts

1. Gimbel HV, Peters NT, Iskander NG, **Anderson Penno E**. Accuracy of Orbscan pachymetry measurements and DHG ultrasound pachymetry in primary laser in situ keratomileusis and LASIK enhancement procedures. *J Cataract Refract Surg* 2001;27:681-685
2. Peters NT, Iskander NG, **Anderson Penno E**, Woods DE, Moore, RA, Gimbel HV. Diffuse lamellar keratitis: Isolation of endotoxin and demonstration of the inflammatory potential in a rabbit laser in situ keratomileusis model. *J Cataract Refract Surg* 2001;27:917-923
3. Gimbel HV, Sun R, Ferensowicz M, **Anderson Penno E**, Kamal A. Intraoperative management of posterior capsule tears in phacoemulsification and intraocular lens implantation. *Ophthalmology* 2001;108:2186-2192
4. Sun R, Gimbel H, **Anderson Penno E**: Intraocular lens power calculation after corneal refractive surgery remains challenging, [Letter]. *Ophthalmology* 2000;107(2):226-227
5. Iskander NG, Peters NT, **Anderson Penno EE**, Gimbel HV. Late traumatic flap dislocation following LASIK. *J Cataract Refract Surg* 2001;27(7):1111-1114
6. Cuzzani OE, **Anderson Penno EE**, van Westenbrugge JA, Iizuka MN, Gimbel HV: Intraocular pressure changes during ring application in LASIK procedures. *J Cataract Refract Surg* 2000 (submitted)
7. Gimbel HV, van Westenbrugge JA, **Anderson Penno EE**, Ferensowicz M. Simultaneous versus bilateral sequential LASIK. [Letter] *Ophthalmology* 2000;107(5):818-819
8. Iskander NG, Peters NT, **Anderson Penno E**, Gimbel HV. Postoperative complications in laser in situ keratomileusis. *Cur Opin in Ophthalmol* 2000;11:273-280
9. Gimbel HV, Peters NT, Iskander NG, **Anderson Penno E**. Laser in situ keratomileusis flap complications and management. *J Refract Surg* 2000;16(2):s223-225
10. Gimbel HV, Iskander NG, Peters NT, **Anderson Penno E**. Prevention and management of microkeratome-related laser in situ keratomileusis complications. *J Refract Surg* 2000;16(2):s226-229
11. Gimbel HV, Sun R, Furlong MT, **Anderson Penno E**: Accuracy and predictability of intraocular lens power calculation after photorefractive keratectomy. *J Cataract Refract Surg* 2000;26:1147-1151
12. Gimbel HV, van Westenbrugge JA, **Anderson Penno EE**, Ferensowicz M, Feinerman GA, Chen R: Simultaneous bilateral laser in situ keratomileusis. *Ophthalmology* 1999;106(8):1461-1468
13. Purba M, **Anderson Penno EE**, Gimbel HV: LASIK postoperative complications and management. *Practical Optometry* 1999;10(2):54-61
14. Gimbel HV, **Anderson Penno EE**, Ferensowicz M: Technique for combined cataract, IOL, and viscoanalostomy. *J Cataract Refract Surg* 1999;25(10):1370-1375
15. Gimbel HV, **Anderson Penno EE**, Furlong MT, van Westenbrugge JA, Ferensowicz MI: Incidence and management of intra and early postoperative complications in 1000 consecutive LASIK cases. *Ophthalmology*; 1998;105(10):1839-1848
16. Tymoczko JL, **Anderson EE**, Lee KA, Unger AL: The ability to convert the 4S glucocorticoid receptor to the 7-8S form is dependent on both RNA and protein factors. *Acta Biochem Biophys*, 1987;930:114-121
17. Tymoczko JL, **Anderson EE**, Unger AL: Studies with chymotrypsin and Rnase showing a heterooligomer structure of the glucocorticoid receptor complex from rat liver which is stabilized by a low molecular weight factor. *Acta Biochem Biophys*, 1986;888:296-305

### Non-peer reviewed manuscripts

1. Cuzzani o, Bromwich M, **Penno E**, Gimbel H. The effect of transmission bandwidth on the quality of ophthalmological still and video images. *J Telemedicine and Telecare* 2000; vol 6, Supple 2:S2:11-S213

2. Gimbel HV, J A van Westenbrugge, **E.E. Anderson Penno**. Letter. Simultaneous vs bilateral LASIK. *Ophthalmology* 2001;108(3):429-430
3. Gimbel HV, Peters NT, Iskander NG, **EE Anderson Penno**. Laser in situ keratomileusis flap complications and management. *Ocular Surgery News (Suppl)* 2001;Jan
4. Gimbel HV, Keamy JE, **EE Anderson Penno**. Attacking post-LASIK striae. *Ophthalmology Management* Oct 2000
5. **Anderson Penno EE**, Gimbel HV: LASIK: The Calgary experience. *Operative Techniques in Cataract and Refractive Surgery* 2000 (submitted)
6. Gimble HV, **Anderson Penno EE**: Cataract: Pathogenesis and treatment. *Highlights of Ophthalmology* 2000; (submitted)
7. Iskander NG, Peters NT, **Anderson Penno EE**, Gimbel HV: Postoperative complications in LASIK. *Current Opinion in Ophthalmology*; 2000 (submitted)
8. Lorenson R, Gimbel HV, **Anderson EE**: Nutritional factors and ocular disease. *Canadian Journal of Clinical Medicine*, 1999;6(1):4-9
9. **Anderson Penno EE**: Cataract Surgery: The state of the art. [Book Review] *Ophthalmic Practice* 1999;17(1):44
10. Gimbel HV, **Anderson Penno EE**: Current techniques of refractive surgery. *Canadian Journal of Clinical Medicine*,1998;5(8):164-177
11. Gimbel HV, **Anderson Penno EE**: Cataracts; Pathogenesis and treatment. *Canadian Journal of Clinical Medicine*, 1998;5(11):232-241

## Books / chapters

Gimbel HV, Anderson Penno EE: LASIK Complications: Techniques and Trends, 3<sup>rd</sup> ed. Thorofare, NJ. SLACK INC (in development)

Gimbel HV, **Anderson Penno EE**: Capsulorhexis Complications. In: Fishkind WJ, Ed. Complications in Phacoemulsification. Avoidance, recognition, and management. New York, NY. Thieme;2002; chap 5 pp36-48.

Gimbel HV, **Anderson Penno EE**: LASIK Complications: Prevention and Management, 2nd ed. Thorofare, NJ. SLACK Incorporated; 2001

Gimbel HV, van Westenbrugge JA, **Anderson Penno EE**: Simultaneous bilateral laser in situ keratomileusis: safety and efficacy. *Year book of Ophthalmology*, Mosby 2000; (submitted)

Gimbel HV, **Anderson Penno EE**. LASIK: The Technique. In: Agarwal S, Pallikaris IG, Knorz MC, Agarwal A, Neuhann T, Agarwal A, eds. *Refractive Surgery*. New Delhi, India. Jaypee Brothers Medical Publishers Ltd; 2000; chap. 25 pp 254-266 Chapter

Gimbel HV, **Anderson Penno EE**, et al: Refractive Surgery. A manual of principles and practice. Thorofare, NJ. SLACK Incorporated;2000 Book

Gimbel HV, **Anderson Penno EE**: Capsulorhexis complications. In Fishkind WJ, ed. *Complications in Phacoemulsification*. New York, NY. Thieme;1999 Chapter (in press).

Gimbel HV, **Anderson Penno EE**, van Westenbrugge JA: Re-Treatments of excimer laser refractive surgery. In Wu HK, ed. *Refractive Surgery*. New York, NY. Thieme; 1999 Ch19 p295-305 Chapter

Gimbel HV, **Anderson Penno EE**: *LASIK Complications: Prevention and management*. [Japanese translation] Thorofare, NJ. SLACK Incorporated; 1999 Book

Gimbel HV, **Anderson Penno EE**: *LASIK Complications: Prevention and management*. Thorofare, NJ. SLACK Incorporated; 1999 Book

**Anderson Penno EE**, van Westenbrugge JA, Gimbel HV: Photorefractive keratectomy enhancement techniques. In: Brightbill FS, ed. *Corneal Surgery: Theory, Technique and Tissue*. 3rd ed. Philadelphia, PA. Mosby; 1999; chap. 87, pp725-732 Chapter

Gimbel HV, Furlong MT, **Anderson Penno EE**: Management of under and overcorrected myopia after radial keratotomy. In Brightbill FR, ed. *Corneal Surgery: Theory, Technique and Tissue*. 3rd ed. Philadelphia, PA. Mosby; 1999; chap. 77, pp645--649) Chapter

Gimbel HV, **Anderson Penno EE**, van Westenbrugge JA: Re-treatments of excimer laser refractive surgery. In Wu H, Thompson V, Steinert R, Slade S, Hersh P, eds. *Refractive Surgery*. New York, NY. Thieme; 1998; chap 19 Chapter

Gimbel HV, **Anderson Penno EE**. Divide and conquer nucleofractis phacoemulsification techniques. In Agarwal A, ed. India; 1998 [Chapter 77] 1999 Chapter

## Abstracts

Peters NT, Iskander NG, **Anderson Penno EE**, Woods DE, Moore RA, Gimbel HV. Diffuse lamellar keratitis: isolation of endotoxin and demonstration of the inflammatory potential in a rabbit laser in situ keratomileusis model. *Am J Ophthalmol* 2001;132(4):607-608. [Edited by Thomas J. Liesegang from J Cat Refract Surg 2001;27:917-923]

Cuzzani O, Gimbel HV, **Anderson Penno EE**, van Westenbrugge JA, Attariwala R. *Variability of intraocular pressure after ring application in LASIK procedures research*. American Academy of Ophthalmology (AAO), New Orleans November 1998 Poster

**Anderson Penno EE**, Gimbel HV: PRK and LASIK for hyperopia after RK. [Abstract] In *American Society of Cataract and Refractive Surgery. Symposium on Cataract, IOL and Refractive surgery*, 1998

Rettig EV, **Anderson EE**, Grill R, Hodge DO, Ilstrup DM, Robertson DM, Gray DT: A retrospective population-based study of the incidence of central retinal vein occlusion. [Paper]. *Association for Research in Vision and Ophthalmology*. Presented at Annual Meeting, 1996

**Anderson E**, Kleppel M, Fan W, Michael A: Isolation of a novel human basement membrane component. [Abstract] *Academy of Clinical Laboratory Physicians and Scientists*. Presented at Annual Meeting, 1989

**Anderson E**, Golub T, Tymoczko J: Glucocorticoid receptor-RNA Association: stabilization by a small, heat-stable factor. [Abstract]. Poster presented at FASEB Meeting, Anaheim, CA. 1985

## Videotapes/CD

Gimbel HV, **Anderson Penno EE**. Interface debris under LASIK flaps: Prevention and management. ASCRS 2001

Gimbel HV, **Anderson Penno EE**: LASIK CD 2001 SLACK produced

**Anderson Penno EE**, Gimbel HV: Laser in-situ keratomieusis after radial keratotomy. 1999 *ASCRS Film Festival* winner.

## Presentations

**Ellen E. Anderson Penno**, Dennis A. Braun, OD. Topical Thiotepe treatment of recurrent haze after PRK. 2001 ASCRS paper.

Ellen E. Anderson Penno, Keamy JE, Stoll SB, Olson ME, Gimbel HV. Diffuse lamellar keratitis: Treatment outcomes with topical steroids and topical nonsteroidals.

### **Presentation Coauthor**

Iskander NG, **Anderson Penno EE**, Peters NT, Gimbel HV. Discrepancies between corneal ultrasound pachymetry and Orbscan optical pachymetry measurements in primary LASIK and LASIK enhancement procedures. 2000 ASCRS paper.

Peters NT, Iskander NG, Woods DE, Gimbel HV, **Anderson Penno EE**, Ferensowicz M. Lamellar keratitis. Isolation of endotoxin sources, and demonstration of their inflammatory potential in a rabbit model. 2000 ASCRS paper.

Gimbel HV, **Anderson Penno EE**: Prevention and Management of LASIK complications. 1999 AAO Course 756.

Gimbel HV, Sun R, **Anderson Penno EE**: Postoperative corneal thinning masquerading as undercorrection or regression in LASIK Surgery. 1999 AAO paper.

### **Book Review**

Refractive cataract surgery and multifocal IOLs, by R. Bruce Wallace, III 240 pgs, illus. SLACK Inc., 2000. ISBN:1-55642-460-4 . *Ophthalmic Practice* 2001;19:8:340

### **Editorial Review - Paper**

Comparison of outcomes following dehiscence of the posterior capsule during phacoemulsification and manual extracapsular cataract extraction. Basti, Garg, Reddy. 8 March 2002 for *J Cataract Refract Surg*