CURRICULUM VITAE FOR ACADEMIC PROMOTION

The Johns Hopkins University School of Medicine

(Signature) _____ February 1, 2012
(Typed Name) Gislin Dagnelie (Date of this version)

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

Associate Professor of Ophthalmology, Johns Hopkins University School of Medicine
Associate Director, Lions Vision Research and Rehabilitation Center

Personal Data

Lions Vision Research and Rehabilitation Center
Johns Hopkins University School of Medicine
550 N. Broadway, 6th floor
Baltimore, MD 21205-2020
(410) 614 4822, fax (410) 955 1829

Education and Training (in chronological order):

Year	Degree	Institution	Discipline
1971	B.S.	Univ of Groningen, NL	physics; minors in math and chemistry
1977	M.S.	Univ of Groningen, NL	experim. physics, specialty medical physics
1986	Ph.D.	Univ of Amsterdam, NL	physics, specialty medical physics
1986-19988		Johns Hopkins Univ, Baltimore, MD	post-doctoral fellowship. ophthalmology

Professional experience:

1/86-6/86: Visiting lecturer, Netherlands Ophthalmic Research Institute
7/88 - present: Faculty, Johns Hopkins Univ School of Medicine, Dept of Ophthalmology
- 1988 - 1990: instructor
- 1990 - 2001: assistant professor
- 1/95 – 6/98: director of Clinical Low Vision Services
- 6/98 – 6/01: director of Low Vision Education
- 2001 - present: associate professor
- 2006 - present: associate director, Lions Vision Research and Rehabilitation Center
- 4/08 – 5/10: director, Wilmer Visual Function Service

RESEARCH ACTIVITIES

Publications: Peer-reviewed Original Science Research

Journal articles

1) Dagnelie G, van den Berg TJTP, Reits D. Unfamiliar Effects of Flicker on the Human EEG. *Docum Ophthalmol Proc* **15**, 173-178 (1978).
2) van der Marel EH, Dagnelie G, Spekreijse H. Pattern Evoked Potentials in Awake Rhesus Monkeys. *Invest Ophthalmol Vis Sci* **21**, 457-466 (1981).
3) van der Marel EH, Dagnelie G, Spekreijse H. The Contrast Origin of Pattern EPs in Awake Rhesus Monkeys. *Doc Ophth Proc Series* **27**, 393-400 (1981).
4) van der Marel EH, Dagnelie G, Spekreijse H. Subdurally Recorded Pattern and Luminance EPs in the Alert Rhesus Monkey. *EEG clin Neurophysiol* **57**, 354-368 (1984).
5) Spekreijse H, Dagnelie G, Maier J, Regan D. Flicker and Movement Constituents of the Pattern Reversal Response. *Vision Res* **25**, 1297-1304 (1985).
6) Dagnelie G, de Vries MJ, Maier J, Spekreijse H. Pattern Reversal Stimuli: Motion or Contrast? *Docum Ophthalmol* **61**, 343-349 (1986).
7) Maier J, Dagnelie G, Spekreijse H, van Dijk BW. Principal Components Analysis for Source Localization of VEPs in Man. *Vision Res* **27**, 165-177 (1987).
8) Massof RW, Marcus S, Dagnelie G, Choy D, Sunness J, Albert M. Theoretical interpretation and derivation of flash-on-flash threshold parameters in visual system diseases. *Applied Optics* **27**, 1014-1024 (1988).
9) Dagnelie G, Spekreijse H, van Dijk BW. Topography and Homogeneity of Monkey V1 Studied subdurally by Means of Visually Evoked Potentials. *Visual Neuroscience* **3**, 509-525 (1989).

10) Massof RW, Dagnelie G, Benzschawel T, Palmer RW, Finkelstein D. First order dynamics of visual field loss in retinitis pigmentosa. *Clin Vision Sciences* **5**, 1-26 (1990).
11) Dagnelie G. Conversion of planimetric visual field data into solid angles and retinal areas. *Clin Vision Sciences* **5**, 95-100 (1990).
12) Dagnelie G. Temporal impulse responses from flicker sensitivities: practical considerations. *JOSA A***9**, 659-672 (1992).
13) Dagnelie G. Conversion of planimetric visual field data: correction and improvement of the polynomial fit. *Clin Vision Sciences* **7**, 459-460 (1992).
14) Dagnelie G, Massof RW. Foveal cone involvement in retinitis pigmentosa progression assessed through flash-on-flash parameters. *Invest Ophthalmol Vis Sci* **34**, 231-242 (1993).
15) Dagnelie G, Massof RW. Foveal cone involvement in retinitis pigmentosa progression assessed through psychophysical impulse response parameters. *Invest Ophthalmol Vis Sci* **34**, 243-255 (1993).
16) Turano K, Herdman SJ, Dagnelie G. Visual stabilization of posture in retinitis pigmentosa and in artificially restricted visual fields. *Invest Ophthalmol Vis Sci* **34**, 3004-3010 (1993).
17) Sunness JS, Schuchard RA, Shen N, Rubin GS, Dagnelie G, Haselwood D. Landmark driven fundus perimetry using the scanning laser ophthalmoscope (SLO). *Invest Ophthalmol Vis. Sci* **36**, 1863-1874 (1995).
18) McCloskey M, Rapp B, Yantis S, Rubin G, Bacon WF, Dagnelie G, Gordon B, Aliminosa D, Boatman DF, Badecker W, Johnson DN, Tusa RJ, Palmer E. A developmental deficit in localizing objects from vision. *Psychol Sci* **6**, 112-117 (1995).
19) Massof RW, Dagnelie G, Deremeik JT, DeRose JL, Alibhai S, Glasner NM. Low vision rehabilitation in the US health care system. *J Vision Rehab* **9(3)**, 3-31 (1995).
20) Turano K, Dagnelie G, Herdman SJ. Visual stabilization of posture in age-related macular degeneration. *Invest Ophthalmol Vis Sci* **37**, 1483-1491 (1996).
21) Humayun M, de Juan Jr E, Dagnelie G, Greenberg R, Propst R, Phillips H. Visual perception elicited by electrical stimulation of retina in blind humans. *Arch Ophthalmol*. **114**, 40-46 (1996).
22) Dagnelie G, Massof RW. Towards an artificial eye. *IEEE Spectrum* **33(5)**, 20-29 (1996).
23) Dagnelie G. [Restoring sight on the threshold of the 21st century] (Dutch). *Klinische Fysica* **1996-1**, 10-13 (1996).
24) Massof RW, Alibhai S, Deremeik JT, Glasner NM, Baker FH, DeRose JL, Dagnelie G. Low vision rehabilitation: documentation of patient evaluation and management. *J Vision Rehab* **10(2)**, 3-31 (1996).
25) Humayun MS, de Juan Jr E, Weiland JD, Dagnelie G, Katona S, Greenberg R, Suzuki S. Pattern electrical stimulation of the human retina. *Vision Research* **39**, 2569-2576 (1999).
26) Weisz JM, Humayun MS, de Juan Jr E, del Cerro M, Sunness JS, Dagnelie G, Soylu M, Rizzo L, Nussenblatt RB. Allogenic fetal retinal pigment epithelial cell transplant in a patient with geographic atrophy. *Retina* **19**, 540-545 (1999).
27) Weiland JD, Humayun MS, Dagnelie G, de Juan Jr E. Understanding the origin of visual percepts elicited by electrical stimulation of the human retina. *Graefe's Archive Ophthalmol*, **237**, 1007-1013 (1999).
28) Dagnelie G, Zorge IS, McDonald TM. Lutein improves visual function in some retinal degeneration patients—a pilot study via Internet. *Optom*, **71**, 147-164 (2000).
29) Humayun MS, de Juan E Jr, del Cerro M, Dagnelie G, Radner W, Sadda SR, del Cerro C. Human neural retinal transplantation. *Invest Ophthalmol Vis Sci*, **41**, 3100-3106 (2000).
30) Margalit E, Maia M, Weiland JD, Greenberg RJ, Fujii GY, Torres G, Piyathaisere DV, O'Hearn TM, Liu W, Dagnelie G, Scribner DA, de Juan Jr. E, Humayun MS. Retinal Prosthesis for the blind. *Survey of Ophthalmology* **47**, 335-356 (2002).
31) Semba RD, Dagnelie G. Are lutein and zeaxanthin conditionally essential nutrients for eye health? *Med Hypoth*, **61**, 465-72 (2003).
32) Humayun MS, Weiland JD, Fujii GY, Greenberg R, Williamson R, Little J, Mech B, Cimmarusti V, Van Boemel G, Dagnelie G, de Juan E. Visual perception in a blind subject with a chronic microelectronic retinal prosthesis. *Vision Res* **43**, 2573-2581 (2003).
33) Hayes J, Yin VT, Piyathaisere D, Weiland JD, Humayun MS, Dagnelie G. Visually guided performance using simulated prosthetic vision. *Artificial Organs* **27**, 1016-1028 (2003).
34) Thompson RW, Barnett GD, Humayun MS, Dagnelie G. Facial recognition using simulated prosthetic vision. *Invest Ophthalmol Visual Sci*, **44**, 5035-5042 (2004).
35) Kiser AK, Mladenovich D, Eshraghi F, Bourdeau D, Dagnelie G. Reliability and Consistency of Visual Acuity and Contrast Sensitivity Measures in Advanced Eye Disease. *Optom Vis Sci* **82**, 946-954 (2005).
36) Kiser AK, Mladenovich D, Eshraghi F, Bourdeau D, Dagnelie G. Reliability and Consistency of Dark-adapted Psychophysical Measures in Advanced Eye Disease. *Invest Ophthalmol Vis Sci* **47**, 444-452 (2006).

37) Dagnelie G, Barnett GD, Humayun MS, Thompson RW. Paragraph text reading using a pixelized prosthetic vision simulator: parameter dependence and task learning in free-viewing conditions. *Invest Ophthalmol Visual Sci* **47**, 1241-1250 (2006).
38) Dagnelie G, Walter M, Yang L. Playing checkers: Detection and eye-hand coordination in simulated prosthetic vision. *J Modern Optics* **53**, 1325-1342 (2006).
39) Dagnelie G. Special report: Visual prosthetics 2006 — assessment and expectations. *Expert Rev Med Devices* **3**, 315-325 (2006).
40) Bahrami H, Melia M, Dagnelie G. Lutein Supplementation in Retinitis Pigmentosa: PC-Based Vision Assessment in A Randomized Double-Masked Placebo-Controlled Clinical Trial. *BMC Ophthalmol* **6**:23 (2006).
41) Dagnelie G, Keane P, Narla V, Yang L, Weiland J, Humayun MS. Real and virtual mobility performance in simulated prosthetic vision. *J Neural Eng* **4**, 92-101 (2007).
42) Hallum LE, Dagnelie G, Suaning GJ, Lovell NH. Simulating Auditory and Visual Sensorineural Prostheses: A Comparative Review. *J Neural Eng* **4**, 58-71 (2007).
43) Velikay-Parel M, Ivastinovic D, Koch M, Hornig R, Dagnelie G, Richard G, Langmann A. Repeated mobility testing for later artificial visual function evaluation. *J Neural Eng* **4**, 102-7 (2007).
44) Kiser AK, Dagnelie G. Reported effects of non-traditional treatments and complementary and alternative medicine by retinitis pigmentosa patients. *Clin Exper Optom* **91**, 166-76 (2008).
45) Dagnelie G. Psychophysical evaluation for visual prosthesis. *Annu Rev Biomed Eng* **10**, 339-68 (2008).
46) Adackapara CA, Sunness JS, Dibernardo CW, Melia BM, Dagnelie G. Prevalence of cystoid macular edema and stability in oct retinal thickness in eyes with retinitis pigmentosa during a 48-week lutein trial. *Retina* **28**, 103-110 (2008).
47) Kiser AK, Deschler EK, Dagnelie G. Visual function and performance with blue-light blocking filters in age-related macular degeneration. *Clin Experiment Ophthalmol* **36**(6), 514-20 (2008).
48) Wang L, Yang L, Dagnelie G. Initiation and stability of pursuit eye movements in simulated retinal prosthesis at different implant locations. *Invest Ophthalmol Vis Sci*, **49**(9), 3933-9 (2008).
49) Wang L, Yang L, Dagnelie G. Virtual wayfinding using simulated prosthetic vision in gaze-locked viewing. *Optom Vis Sci* **85**(11), E1057-63 (2008).
50) Srivastava NR, Troyk PR, Dagnelie G, Detection, eye-hand coordination and virtual mobility performance in simulated vision for a cortical visual prosthesis device. *J Neural Eng* **6**(3): 035008 (2009).
51) Bittner AK, Diener-West M, Dagnelie G. A survey of photopsias in self-reported retinitis pigmentosa: Location of photopsias is related to disease severity. *Retina* **29**(10): 1513-21 (2009).
52) Salgado CM, Dagnelie G, Miller NR. Bitemporal hemianopia caused by retinal disease. *Arch Ophthalmol* **127**(12): 1690-3 (2009).
53) Kubal A, Dagnelie G, Goldberg M. Ocular albinism with absent foveal pits but without nystagmus, photophobia, or severely reduced vision. *J AAPOS* **13**(6): 610-2 (2009).
54) Dagnelie G. Visual prosthesis: Further comments on the paper by Schiller and Tehovnik. *Perception*, 39(3): 437-9 (2010).
55) Ahuja AK, Dorn JD, Caspi A, McMahon MJ, Dagnelie G, daCruz L, Stanga P, Humayun MS, Greenberg RJ; Argus II Study Group. Blind subjects implanted with the Argus II retinal prosthesis are able to improve performance in a spatial-motor task. *Br J Ophthalmol* **95**(4), 539-43 (2011)
56) Eng JG, Agrawal RN, Tozer KR, Ross-Cisneros FN, Dagnelie G, Greenberg RJ, Chader GJ, Weiland JD, Rao NA, Sadun AA, Humayun MS. Morphometric analysis of optic nerves and retina from an end-stage retinitis pigmentosa patient implanted with an active epiretinal array. *Invest Ophthalmol Vis Sci*. **52**:4610-6 (2011).
57) Bittner AK, Diener-West M, Dagnelie G. Characteristics and possible visual consequences of photopsias in retinitis pigmentosa patients with reduced vision. *Invest Ophthalmol Vis Sci* **52**:6370-6 (2011).
58) Bittner AK, Jeter PE, Dagnelie G. Grating acuity and contrast tests for clinical trials of severe vision loss. Optom Vis Sci **88**:1153-63 (2011).
59) Bittner AK, Iftikhar MH, Dagnelie G. Test-retest, within-visit variability of Goldmann visual fields in retinitis pigmentosa. Invest Ophthalmol Vis Sci **52**:8042-6 (2011).
60) Bittner AK, Ibrahim MA, Haythornthwaite JA, Diener-West, M, Dagnelie G. Vision test variability in retinitis pigmentosa and psychosocial factors. Optom Vis Sci **88**:1496-506 (2011).
61) Bittner AK, Haythornthwaite JA, Diener-West, M, Dagnelie G. Photopsias are related in part to perceived stress and positive mood in retinitis pigmentosa. *Eye* **26**:101-8 (2012).
62) Dagnelie G, Retinal implants: emergence of a multidisciplinary field. *Curr Opin Neurol* **25**: 67-75 (2012).
63) Humayun MS, Dorn JD, da Cruz L, Dagnelie G, Sahel JA, Stanga PE, Cideciyan AV, Duncan JL, Eliott D, Filley E, Ho AC, Santos A, Safran AB, Arditi A, Del Priore LV, Greenberg RJ. Interim

Results from the International Trial of Second Sight's Visual Prosthesis. *Ophthalmol*. 2012 Jan 11. [Epub ahead of print]

Extramural Funding (current, pending, previous

Grants, current

1/2011-12/2015	"Develop and Validate a Prosthetic Low Vision Rehabilitation (PLoVR) Curriculum"; National Eye Institute/NIBIB, R01 EY21220, $250k ADC; PI (40%)
8/2008-7/2012	"Low Vision Depression Prevention Trial for Age Related Macular Degeneration"; National Eye Institute, UEY018819A; P.I. Barry Rovner, Thomas Jefferson Univ; $14k ADC; subcontract co-investigator (2.5%)
1/2010-12/2012	"Record and analyze activity evoked by retinal implants"; National Eye Institute, 1R21EY019991-01; $137.5k ADC; P.I. (20%)
4/2010-3/2013	"Visual & Memory Stimulating (VMS) Grid Self-Monitoring Tests"; National Eye Institute, 1R44EY018990-02; P.I. Marc Roser, The Results Group; $49.5k ADC; subcontract P.I. (12.5%)
5/2010-4/2013	"Development & Testing of Low Vision Assessment Tools for Retinal Prostheses"; NIH (OD/NEI), 1RC3EY020778-01; P.I.: Robert Greenberg, Second Sight Medal Products LLC; $75k ADC; subcontract P.I. (20%)
9/2011-8/2013	"Survey and Test Platform for Use in Underserved Populations (STeP-UP), Phase II"; National Eye Inst/NIA, 1R42 EY020191-02; P.I., Gislin Dagnelie, Advanced Medical Electronics Corp; $130k ADC; subcontract P.I.
2/2012-1/2013	"Vision Test Validation for IRD Clinical Trials"; QLT Inc.; $100k ADC; P.I. (2.5%)

Contracts, current:

5/2007 - 9/2012	"Argus™ II Retinal Implant System Feasibility Protocol"; Second Sight Medal Products LLC; $460k; Center PI (40%)

Grants, pending

4/2012-3/2013	"Vision Test System for the Hearing Impaired (ViTSHI)"; NIDCD; P.I. Gary Havey, Advanced Medical Electronics Corp.; $31k ADC; subcontract P.I. (5%)
7/2012-6/2014	"Community-testing the STEP-UP survey test and education program"; Patient centered Outcomes Research Institute; $250k; P.I. (5%)

Grants, previous

7/1982 - 6/1984	"Development of a portable EEG telemetry system"; Netherlands Foundation for Technical Sciences; $200k; P.I.: D. Reits; co-investigator (software/hardware development; 100%)
4/1986	"Pattern and motion processing in primate visual cortex"; publication grant for Ph.D. thesis, Edward and Marianne Blaauw Fund for Ophthalmology; $5,000
1/1987 -12/1988	Training grant, Retinitis Pigmentosa Foundation; $70k
7/1990 - 6/1992	"Relation of phototransduction abnormalities to gene defects in retinitis pigmentosa"; Retinitis Pigmentosa Foundation; $100k; P.I. (100%, yr.1; 50%, yr.2)
7/1991 - 6/1994	"Studies in Retinitis Pigmentosa"; National Eye Institute, EY01791; $750k; P.I.: Robert W. Massof; co-investigator (25% yr. 1, 50% yrs. 2-3)
7/1991 - 6/1994	"Development of the Low Vision Enhancement System (LVES)"; VA Rehab R&D; $450k; P.I.s: Peter Lalle, Robert W. Massof; co-investigator (25% yr. 1, 50% yrs. 2-3)
7/1994 - 6/1996	"Evaluation of the LVES"; VA Rehab R&D; $300k; P.I.s: Peter Lalle, Robert W. Massof; co-investigator (50%)
1/1998 -12/1999	"Establishment and validation of a visual function test battery to monitor individuals with significant visual impairment"; Foundation Fighting Blindness; $82k; P.I. (50%)
12/1998-11/2000	"Medicare utilization in an elderly population at increased risk of visual impairment"; Retirement Research Foundation: $100k; P.I. (30%)
7/1998 - 6/2001	"Studies of electronic-neuronal interfacing in the human visual system."; DARPA; $135k; P.I.: Mark S. Humayun; co-investigator (25%)
7/1999 - 6/2002	"Mechanisms of neglect dyslexia"; NINDS; P.I.: Alfonso Caramazza/Brenda Rapp; co-investigator (5%)
1/2000 - 6/2006	"Visual function assessment in patients with end-stage Retinal Degenerations", module of AMD Center Grant; Foundation Fighting Blindness (Center P.I.: Peter Campochiaro); $372k; P.I. (30%)
7/2000 - 4/2003	"R21 project: Effects of lutein in retinitis pigmentosa"; National Center for Complementary and Alternative Medicine, R21 AT00292; $410k; P.I. (50%)

8/2000 - 7/2006 "Studies of simulated prosthetic vision"; National Eye Institute, R01 EY12843; $775k; P.I. (60%)

10/2002 - 9/2005 "Trainable visual aids for object detection and identification"; National Science Foundation, IIS-0209289; $289k; P.I.: Gert Cauwenberghs; co-investigator (17%)

5/2003 - 2/2005 "Enhanced retinal prosthetics through infrared imaging"; National Eye Institute, R43 EY014727; $125k; P.I.: Scott Kalpin, AME Corp; sub-contract P.I. (25%)

4/2003 - 3/2006 "Novel vision tests: data analysis from a RP lutein trial"; National Eye Institute, R03 EY14416; $200k; P.I. (25%)

10/2005 - 3/2006 "Thermal Imaging as an Aid for the Blind"; National Institute for Disability and Rehabilitation Research, R41 H133S050093; $100k; P.I.: Gary Havey, AME Corp; subcontract P.I. (15%)

9/2006-8/2007 "Calibration Tools For PC-Based Vision Assessment"; National Eye Institute, R41 EY017467; subcontract through Advanced Medical Electronics Corp.; $30k; P.I. (20%)

8/2007-7/2008 "Thermal imaging aid for the blind"; National Science Foundation, 0710817; P.I.: Gary Havey, AME Corp; $25k; subcontract P.I. (15%)

9/2007-8/2009 "Calibration Tools For PC-Based Vision Assessment"; National Eye Institute, R42 EY017467; $200k; P.I. (25%)

7/2008-6/2009 "Visual & Memory Stimulating (VMS) Grid Self-Monitoring Tests"; National Eye Institute, 1R43EY018990-01; P.I. Marc Roser, The Results Group; $25k; subcontract P.I. (12.5%)

4/2010-12/2010 "Survey and Test Platform for Use in Underserved Populations (STeP-UP)"; National Eye Institute; 1R41 EY020191-01; subcontract through Advanced Medical Electronics Corp.; $36.8k; P.I. (15%)

Contracts, previous:

7/1997 - 6/1998 "Simulating prosthetic vision in normally-sighted observers"; NINDS Laboratory for Neural Control; $10k; consultant (18%)

7/2000 - 6/2002 "Supplement and serology for R21 project: Effects of lutein in retinitis pigmentosa"; Kemin Corp; $30k; PI (0%)

10/2003 - 9/2006 "Safety and efficacy of the IMT-2 implantable miniature telescope"; VisionCare Ophthalmic Technologies; $40k; PI: Oliver Schein; co-investigator (5%)

11/2004-10/2007 "Clinical evaluation of the ASR device for the treatment of vision loss from retinitis pigmentosa"; Optobionics Corp; $364k; Center PI (30%)

4/2007 - 6/2007 "Simulations of cortical prosthetic vision"; Illinois Inst of Technology; $15k; PI (20%)

12/2006 7/2011 "Use of PC-based vision tests in the Viva! Wellness program"; Erickson Foundation; fee per installation; PI (5%)

EDUCATIONAL ACTIVITIES

Teaching:

Lectures to 2nd year medical students as part of 2-week ophthalmology/ neurology rotation:

Taught 4 times per year, 1/2006 – 4/2010. Available on-line through WhiteBoard (JHMI).

Visual system anatomy and physiology: overview of cell populations in the retina and their function in health and disease, as well as their connection to visual centers in the brain

Introduction to low vision rehabilitation: overview of causes and prevalence of visual impairment as well as the rehabilitative strategies to assist patients with vision disabilities.

Medical student teaching, Genes to Society curriculum:

Low vision impact lecture, integrated with lecture on retinal degenerations, since academic year 2010

Ophthalmology resident teaching:

Introduction to low vision rehabilitation: overview of causes and prevalence of visual impairment, rehabilitative strategies to assist patients with vision disabilities, and indications for referral to a low vision rehab specialist.

Low vision rehab Evaluation and management: Emphasis on rehab medicine aspects of low vision evaluation: risk factors, co-morbidities, assessing rehab potential, patient education, referral indications for occupational, and reporting

Medicare coding related to low vision rehabilitation: History and current regulations regarding reimbursement for low vision rehabilitation E&M and therapeutic interventions.

These lecture were taught annually 2000-2005. Due to competing requests for time in the ophthalmology residents' lecture schedule these lectures have not been given in recent years.

Diagnostic use of electrophysiology in retinal disease management: Lecture in the Retina Division series of resident teaching, developed and first taught April 2009. Available on-line through WhiteBoard (JHMI).

Lectures for on-line low vision rehabilitation specialist training course:

Anatomy and Physiology of the visual system, and *Visual function testing*, two lectures in a comprehensive 24-lecture series and on-line knowledge assessment for a certificate program in low vision rehabilitation, authored by JHU Lions Vision Center faculty in collaboration with Emerald Events, Inc., under the auspices of the Assn for Education and Rehabilitation of the Visually Impaired.

Lectures for graduate and undergraduate courses in the JHU Krieger School of Arts and Sciences:

Anatomy and Physiology of the visual system, and *Vision restoration through novel technologies: electrical stimulation and cell transplantation*. These lectures are being taught annually as part of courses in the Departments of Cognitive Science (Michael McCloskey and Brenda Rapp) and Psychology and Brain Sciences (Steven Yantis).

Invited workshops and educational lectures:

12/1995 Winter Retina Workshop, LV Prasad Eye Institute, Hyderabad, India: Workshop on clinical electrophysiology (6 hrs)
10/1996 JCAHPO Low Vision workshop, Baltimore, MD: Educating the low vision patient
10/1996 Assn for Education & Rehabilitation of the Blind and Visually Impaired, Binghamton, NY: Workshop on vision rehabilitation and restoration technologies
3/1997 Josephine L. Taylor Leadership Institute of the Assn for Education & Rehabilitation of the Blind and Visually Impaired, Washington DC: Uniform outcome measures in Low Vision
6/1997 Professional education course for Low Vision providers, Baltimore, MD: Basic principles of light, seeing, optics, and low vision technology (6 hrs)
3/1998 Workshop on low vision rehabilitation in the Swedish and US health care systems, Gothenburg, Sweden
8/1998 JCAHPO workshop, "Assisting in Low Vision", Baltimore, MD: Medicare reimbursement for low vision
3/1999 Cooper Union, New York, NY: Vision restoration technologies
3/2000 Assn for Education & Rehabilitation of the Blind and Visually Impaired, Annapolis, MD: Workshop on vision restoration technologies
10/2000 Netherlands Retina Foundation, Utrecht: Update on visual prosthesis development and simulations
2/2001 JCAHPO course, Baltimore, MD: The retinitis pigmentosa patient (repeated 2/2004)
4/2005 VA rehabilitation Center, Augusta, GA: Lectures on vision restoration technologies and prosthetic vision simulations (3 hrs)
4/2006 National Outreach Forum, Educators for the Blind and Visually Impaired, Baltimore, MD: Prosthetic vision for the blind
6/2006 American Association of the Deaf Blind, Baltimore, 2006: Workshop on vision restoration technologies

Supervision and mentoring:

Undergradate students:

Between 1 and 4 JHU undergraduates annually, and occasional students from other institutions, performing research projects for 1-3 credits per semester. Most of these have been in the area of prosthetic vision simulations, and more recently prosthetic vision training and rehabilitation. In addition, several students from area high schools have worked in the lab, either to gain experience or as part of a college-preparatory intensive science curriculum.

Graduate students:

Ava K. Bittner, OD, 2007-2011, pursuing a Ph.D. in clinical investigation at the Johns Hopkins Univ Bloomberg School of Public Health

Michael P. Barry, MS, 2010-2014, pursuing a PhD in biomedical engineering at the Johns Hopkins Univ School of Medicine

JHU medical students: 3 students have been supported by dean's stipends to participate in summer research rotations, working on in assessment and test development studies in the laboratory

Foreign medical students: Students from the Univ of Dublin, Ireland; St. Barts, London, UK; and Univ of Karachi, Pakistan, have participated in prosthetic vision research and vison assessment research for 2-4 month periods.

Ruprecht Karls University, Heidelberg, Germany, collaboration: in 2004 and 2006, graduate students in a Master's program at the Kirchhoff Institute of Physics have worked on 6-month research

projects in the area of prosthetic vision simulations, and written their master's theses about the methodology and results. This is an on-going program, intended to sponsor one student annually.

Other graduate students: A total of 6 Ph.D. students from JHU (Department of Neuroscience), Illinois Institute of Technology, MEEI Tokyo Institute of Technology, have worked in the lab for testing and other research projects of 3-6 months in the area of prosthetic vision simulations.

Postdoctoral fellows and predoctoral trainees:

Vessela Giger-Mateeva, MD, PhD (postdoc 1998-2000), is a foreign graduate who validated use of electrophysiologic testing in patients with advanced retinal degenerations. She since attended Univ of Rochester medical school 2000-2004 to complement her degree. Currently a resident, Dept, of Neurology, Univ of Buffalo SoM.

Debra Bourdeau*, OD, (postdoc 2000-2001) combined visual psychophysics and low vision optometry, then interrupted her fellowship to start a family, and is currently self-employed in private optometry practice in East Lansing, MI

Fariba Eshraghi*, OD, (postdoc 2001-2003) continued the electrophysiologic test validation study, then joined the Anterior Segment service of the JHU Department of Ophthalmology where she combined research and clinical work. currently in Dallas, TX, where she practices optometry and performs clinical research.

Derek Mladenovich*, OD, (postdoc 2003-2004) continued the electrophysiologic test validation study, then acquired a passion for international optometry and epidemiology of eye disease. He is currently a part-time faculty member at the Pennsylvania College of Optometry, teaching courses in the school's international satellite programs, and is involved in several WHO-sponsored programs in international eye health.

Ava Bittner (erstwhile Kiser)*, OD, (postdoc 2003-2008) validated the use of psychophysical testing in patients with advanced vision loss, coordinated the IMT and Optobionics clinical trials, and played a major role in PC test development. She is currently sponsored by a K23 award to pursue a doctorate in epidemiology at the JHU School of Public health, studying the role of mind-body interactions in the progression of retinal degenerations.

Heidi Bowie, OD, (postdoc 2004-2005) validated the use of PC based vision tests in visually impaired patients with a range of eye diseases. She is currently a practicing optometrist in Silver Spring, MD, specializing in low vision.

Lin Wang, PhD, (postdoc 2005-2006), studied the role of eye movements in prosthetic vision simulations. He is currently a research associate in the JHU Department of Ophthalmology.

Lisa Ostrin, OD, PhD, (postdoc 2006-2007) analyzed electrophysiologic data collected in patients with advanced vision loss. She is currently in a K12 award program at the Univ of California Berkeley.

Pamela Jeter*, PhD, (postdoc 2010-present) is studying sleep disturbances in late-stage retinitis pigmentosa and the possible benefits of yoga on reducing these disturbances. Since Sept. 2011, Dr. Jeter is sponsored by a Diversity Supplement to R01 EY021220, participating the studies to develop a prosthetic low vision education curriculum..

H. Christiaan Stronks, PhD (postdoc 2010-2012) is studying electrical responses in the retina and visual cortex of retinal implant wearers, in response to electrical stimulation.

Angela Kelley, MS, was a trainee in the laboratory from November 2002 through July 2004, under an administrative supplement to R01 EY12843, "Studies of simulated prosthetic vision," sponsored by the NIH training program for underrepresented minorities.

Hossein Bahrami, MD, a foreign medical graduate (Tehran, Iran), was a pre-doctoral trainee 2003-2004, completed MPH training in epidemiology; currently enrolled in cardiology residency training, Yale Univ.

Yi-Kai Wu, BS, a foreign graduate in biomedical engineering (Kaishiung, Taiwan) was a trainee from 11/2003 through 5/2004, constructing an IR pupil tracking camera into a head-mounted display as part of a BME master's program.

Michael Barry, a BA/MS combined degree student in the Department of Neuroscience, Johns Hopkins Univ, worked in the lab as a trainee in Studies of retinal implants and simulated prosthetic vision (1/2007 - 5/2010). Since 7/2010, he has joined the lab as a JHU graduate student in Biomedical Engineering.

*Five of the postdoctoral fellows were supported for one year by a T32 institutional training grant (Visual Neuroscience Training Program, JHU Department of Ophthalmology, P.I. Don Zack, M.D., Ph.D.), the others by NEI and FFB grants.

Clinician Scientist Award:

Ava K. Bittner (K23 Award, National Eye Institute, 2007-2012) is studying the interactions between psychosocial variables and the progression of retinitis pigmentosa, and pursuing a Ph.D. degree under the Graduate Training Program in Clinical Investigation, JHU Bloomberg School of Public Health, expected 3/2011

Dissertation referee:

2006 "An image processing system for the study, modeling and rehabilitation of visual impairments", Victor Boskovitz; Ben Gurion Univ of the Negev, Beer-Sheva, Israel

2007 "Prosthetic vision: Visual modeling, information theory and neural correlates", Luke Hallum; Univ of New South Wales, Sydney, Australia

2008 "The Perception and Comprehension of Prosthetic Vision", Spencer Chin-Yu Chen, Univ of New South Wales, Sydney, Australia

2011 "The relationship of variability in vision and photopsias with disease severity and psychosocial factors in retinitis pigmentosa," Ava K. Bittner, Johns Hopkins Univ, Baltimore, MD

CLINICAL ACTIVITIES

Clinical (Service) Responsibilities (dates, specialty, role, time commitment)

2008-2010 Wilmer Visual Function Service: Test interpretation and report generation (professional component, upplemented with testing (technical component in case of unavailability of technician. 10% effort

ORGANIZATIONAL ACTIVITIES

Educational organization and program building:

10/1996 JCAHPO workshop, "Introduction to low vision rehabilitation", Baltimore, MD; 1-day workshop

2/1997 JCAHPO workshop, "Assisting in Low Vision", Baltimore, MD; 3-day workshop

6/1997 Professional education course for low vision care providers, Baltimore, MD; 2-week course

10/1997 & 3/1998 Professional education exchange between the Low Vision Clinics ot JHU and the University of Gothenburg, Sweden; 2 x 4 weeks

8/1998 JCAHPO workshop, "Assisting in Low Vision", Baltimore, MD; 4-day workshop

Clinical organization and program building:

1992-1994 Comprehensive Vision Rehabilitation Program of the Lions Low Vision Service, built around the Low Vision Enhancement System

1997-2000 Satellite Lions Low Vision Service Clinic at Retina Consultants, Bethesda, MD

University and departmental committees:

School of Medicine committees:

2001-2004 Substitution for member, Department of Ophthalmology representative on the MSC (6x)

2004-2008 Department of Ophthalmology representative on the Medical School Council (MSC)

2005-2008 MSC Agenda Committee member

2006-present Joint Oversight Committee on Faculty Development, Diversity and Gender, member

1-2/2006 School of Medicine LCME re-accreditation task force; member

Departmental committee:

2005-present Wilmer Long-Range Planning Committee; member

2010-present Wilmer Grants Management Committee member

Professional society memberships:

1983-present Association for Research in Vision and Ophthalmology

1989-present American Academy of Optometry

1986-present Optical Society of America

1978-present International Society for Clinical Electrophysiology of Vision

1982-2002 European Neuroscience Association

1985-2004 European Brain and Behaviour Society

1984-present Netherlands Physics Society

1980-present Netherlands Society for Biophysics

1978-1986 Netherlands Society for Ultrasound in Medicine and Biology

1994-2002, 2007-present Association for Education and Rehabilitation of the Visually Impaired

1996-present Low Vision Research Group

2005-present International Society of Low Vision Rehabilitation and Research

Editorships:

1995 Feature Editor, Clinical Vision and Visual Optics, JOSA A **12**(10)

1999-2001 Guest Editor, Invest Ophthalmol Vis Sci

2006-2007 Associate Editor, IEEE Trans Neural Systems and Rehabilitation Engineering

2007-2011 Textbook Visual Prosthetics (see Other Professional Accomplishments: Publications)

2012 Guest Editor, Optometry & Vision Science feature issue on low vision research

Grant review panels:
- Foundation Fighting Blindness
- National Science Foundation
- NIH special emphasis panels: CP (2005), ZEY1 (2004-2005), ZRG1 (2002-2011), BNVT (2012)
- Army Research Office, Department of Defense

Journal reviews (ad hoc):
- American Journal of Ophthalmology
- Applied Optics
- Behavior Research Methods Instruments & Computers
- Clinical Vision Science
- Documenta Ophthalmologica
- Department of Energy Visual Prosthesis Workshop Proceedings
- Experimental Eye Research
- Glaucoma
- IEEE Transactions on Biomedical Engineering
- IEEE Transactions on Neural Systems and Rehabilitation Engineering
- Indian Journal of Ophthalmology
- International Journal of Neuroscience
- Investigative Ophthalmology and Visual Science
- Journal of Neural Engineering
- Journal of the Optical Society of America A
- Journal of Rehabilitation Research and Development
- Journal of Vision
- Journal of Visual Impairment and Blindness
- Ophthalmology
- Optometry
- Optometry and Vision Science
- Perception & Psychophysics
- Retina
- Seeing & Perceiving
- Strabismus
- Visual Impairment Research
- Visual Neuroscience
- Vision Research

RECOGNITION

Awards and honors:

1988	Binkhorst Award for ophthalmological research in the Netherlands, for doctoral dissertation research
2000	Fellow, American Academy of Optometry
2001	William Weiss Award for research in retinitis pigmentosa
2009	Inaugural fellow, Association for Research in Vision and Ophthalmology

Invited research lectures:

3/1989	National Eye Institute Grand Rounds
9/1994	Artificial Vision Mtg, Bonn, Germany (in german)
3/1998	Research seminar, Univ of Bonn Dept of Neural Engineering
3/1998	Artificial Vision Mtg, Bonn, Germany (in german)
3/1998	Low Vision Symposium, Gothenburg, Sweden
6/1998	International Congress of Ophthalmology, Low Vision Symposium, Amsterdam
12/1998	Retina Winter Conference, Hyderabad, India
12/1999	FFB Meeting on Clinical End Points, Ann Arbor, MI
9/2000	Research seminar, Visual Prosthesis Group Université Catholique de Louvain, Belgium (in french)
2/2001	Colloquium, Ecole d'Optométrie, Montreal (in french)
12/2000	ARVO/AAO joint symposium, American Academy of Optometry Annual Meeting, Orlando
7/2001	Research seminar, VA Research & Rehab Center, Atlanta, GA
7/2001	Research seminar, VA Vision Rehab Center, Birmingham, AL
7/2001	Research seminar, School of Optometry, Univ of Alabama, Birmingham, AL
4/2002	Joint Meeting on Retinal Degenerations, FFB & Retina France, Paris, France

6/2002 The Eye and the Chip world conference on visual prosthetics, Detroit, MI
12/2002 Research seminar, Univ of California San Diego, Dept of Psychology
2/2003 Winter Conference on Neural Plasticity, Guadeloupe
9/2003- Evening lecture, New York Ophthalmological Society
10/2003 Symposium honoring Dr. Henk Spekreijse, Royal Netherlands Academy of Sciences, Amsterdam, NL
6/2004 The Eye and the Chip world conference on visual prosthetics, Detroit, MI
6/2005 University of West Virginia Low Vision Symposium, Morgantown, WV
1/2006 Research seminar, Illinois Institute of Technology, Chicago, IL
4/2006 Clinical Electrophysiology of Vision, Baltimore, MD
6/2006 The Eye and the Chip world conference on visual prosthetics, Detroit, MI
9/2006 Artificial Vision 2006: The Bonn Dialogue, Bonn, Germany
9/2007 Clinical Electrophysiology of Vision, Baltimore, MD
9/2007 Prosthetic Vision for the Blind, UMD Lab for Physical Sciences, College Park, MD
10/2007 Visual prosthetics overview, Outcome measures meeting Smith Kettlewell Inst, San Francisco, CA
1/2008 Joint Biomedical Engineering Workshop Johns Hopkins Univ - Jiao Tong Univ, Shanghai, PRC,
4/2008 Chinese Ophthalmology & Optometry Congress 2008, Nanjing, PRC
6/2008 The Eye and the Chip world conference on visual prosthetics, Detroit, MI
6/2008 Retina Foundation Netherlands 25 year symposium, Amsterdam, NL (in dutch)
7/2008 Symposium on the future of vision rehabilitation, Vision 2008 Intl Low Vision Conf, Montreal, QC
7/2008 McFarlane Symposium on the future of vision rehabilitation, AERBVI Annual Meeting, Chicago, IL
9/2008 Envision Annual Low Vision Conference, San Antonio, TX
10/2008 Hirsch Symposium on Prosthetic Vision, American Academy of Optometry, Anaheim, CA
11/2008 Bioengineering Institute, Univ Miguel Hernandez, Elche, Spain
8/2009 National Assn of Vision Education Professionals, Baltimore, MD
9/2009 Artificial Vision 2009: The Bonn Dialogue, Bonn, Germany
9/2009 Netherlands Society of Parents of Children with Retinal Degenerations, Leiden, NL (in dutch)
10/2009 Workshop on fingerprint recognition, NIST/Nat.Inst of Justice, Miami Beach, FL
10/2009 International MD support Group, on-line lecture
3/2010 Journée Scientifique, Ecole d'Optométrie, Université de Montréal, Montreal, QC
9/2010 The Eye and the Chip world conference on visual prosthetics, Detroit, MI
9/2010 IDEA 2010 International Congress of Engineering, Monterrey, Mexico
9/2010 Canadian National Institute for the Blind 2010 Board and Annual General Meeting, Calgary, AB
3/2011 Schepens Eye Research Institute, Boston, MA
6/2011 Visions Conference, Foundation Fighting Blindness, Baltimore, MD
1/2012 Lunch & Learn lecture, QLT Inc, Vancouver BC, Canada
3/2012 Workshop on Visual Prosthesis Development, Terrasa, Catalunya, Spain
5/2012 Symposium on Evaluation of Very Low Vision, ARVO annual meeting, Ft. Lauderdale, FL

OTHER PROFESSIONAL ACCOMPLISHMENTS

Publications:

Books:

1) Dagnelie G. Visual Prosthetics: Physiology, Bioengineering, Rehabilitation. Springer, New York, ISBN 978-1-4419-0753-0 (2011)

Book Chapters:

1) Dagnelie G, Massof RW, Humayun MS. Vision Enhancement Systems. Ch. 54, pp. 763-774, in "Principles of Tissue Engineering (2nd ed.)," Lanza RP, Langer R, Vacanti J. Acad. Press, San Diego; ISBN 0-12-436631-7.
2) Weisz JM, Humayun MS, Dagnelie G, de Juan Jr E. Human neural retina and retinal pigment epithelium transplantation. Ch. 37 in "Macular surgery," Quiroz-Mercado H, Alfaro III DV, Liggett PE, Tano Y, de Juan Jr E. Lippincott Williams & Wilkins, Philadelphia; ISBN 0-7817-1531-8.
3) Dagnelie G. Johns Hopkins Wilmer Low Vision Service: Private Practice Fee for Service. Ch. 18, pp. 233-251, in "Issues in Low Vision Rehabilitation: Service Delivery, Policy, and Funding," Massof RW, Lidoff L. AFB Press, New York; ISBN 0-89128-309-9.

4) Dagnelie G, Au Eong KG, Weiland JD, Sadda S. Vision Enhancement Systems. Ch. 100, pp. 1107-1125, in "Methods of Tissue Engineering," Atala A, Lanza RP. Acad. Press, San Diego; ISBN 0-12-436636-8.
5) Dagnelie G. Virtual technologies aid in restoring sight to the blind. Ch. 15, pp. 247-271, in "Communications through virtual technology: Identity, community and technology in the internet age," Riva G, Davide F. IOS Press, Amsterdam; ISBN 1-58603-162-7.
6) Dagnelie G, Margalit E. The visual system as a neuroprosthesis substrate: Anatomy, physiology, function. Ch. 1.07 in "Neuroprosthetics, theory and practice," Horch KW, Dillon G. World Scientific Press, Singapore; ISBN 981-238-022-1.
7) Margalit E, Dagnelie G, Weiland JD, de Juan Jr. E, Humayun MS. Can vision be restored by electrical stimulation? Ch. 7.05 in "Neuroprosthetics, theory and practice," Horch KW, Dillon G. World Scientific Press, Singapore; ISBN 981-238-022-1.
8) Walter M, Yang L, Dagnelie G. Prosthetic Vision Simulation in Fully and Partially Sighted Individuals. Pp. 71-90 in Humayun MS et al. (eds) Artificial Sight: Basic Research, Biomedical Engineering, and Clincial Advances. Springer, New York (2007).
9) Dagnelie G. Vision Enhancement Systems. Ch. 69, pp. 1045-1059, in "Principles of Tissue Engineering (3rd ed.)," Lanza RP, Langer R, Vacanti J. Acad. Press, San Diego; ISBN 978-0-12-370615-7.
10) Dagnelie G. The human visual system - an engineering perspective. Ch. 1 in "Visual Prosthetics: Physiology, Bioengineering, Rehabilitation," Dagnelie G. Springer, New York, ISBN 978-1-4419-0753-0 (2011).
11) Barry MP, Dagnelie G. Simulations of prosthetic vision. Ch. 16 in "Visual Prosthetics: Physiology, Bioengineering, Rehabilitation," Dagnelie G. Springer, New York, ISBN 978-1-4419-0753-0 (2011).
12) Stronks HC, Dagnelie G. Phosphene mapping techniques for visual prostheses. Ch. 19 in "Visual Prosthetics: Physiology, Bioengineering, Rehabilitation," Dagnelie G. Springer, New York, ISBN 978-1-4419-0753-0 (2011).
13) Schneck M, Dagnelie G. Prosthetic vision assessment. Ch. 20 in "Visual Prosthetics: Physiology, Bioengineering, Rehabilitation," Dagnelie G. Springer, New York, ISBN 978-1-4419-0753-0 (2011).

Theses:
1) Dagnelie G. [Non-stationary Aspects of the Visually Evoked Response to Sinusoidally Modulated Light]. *Master's Thesis (dutch), University of Groningen* (1977).
2) Dagnelie G. Pattern and Motion Processing in Primate Visual Cortex. *Ph.D. dissertation, University of Amsterdam*. Available on microfilm through University Microfilm International, Ann Arbor; publication # DA87-09608 (1986).

Editorials:
1) Dagnelie G, Schuchard RA. The state of visual prosthetics—Hype or promise? *J Rehab Res Devel* **44(3)**, vii-x (2007).

Conference Reports/Proceedings:
1) Dagnelie G, Maier J. Visually Evoked Potentials to Motion Onset-Offset: An Alternative Tool for Clinical Electrophysiology? *Noninvasive Assessment of the Visual System*, Technical Digest 87-4 (Optical Soc Am), 28-31 (1987).
2) Dagnelie G, Massof RW. A Model For the Time Course of Photoreceptor Loss in Retinitis Pigmentosa, as Documented by Goldmann Fields. *Noninvasive Assessment of the Visual System*, Technical Digest 88-3 (Optical Soc Am), 62-65 (1988).
3) Dagnelie G, Massof RW. Temporal impulse response from flicker sensitivity: application to Retinitis Pigmentosa patients. *Noninvasive Assessment of the Visual System*, Technical Digest 90-3 (Optical Soc Am), 226-229 (1990).
4) Dagnelie G. Design for a shoebox-size, computer-controlled, three-color temporal contrast sensitivity tester. *Noninvasive Assessment of the Visual System*, Technical Digest 91-1 (Optical Soc Am), 60-63 (1991).
5) Dagnelie G. Foveal Ferry-Porter data in RP patients: saturation at high intensities. *Noninvasive Assessment of the Visual System*, Technical Digest 93-3 (Optical Soc Am), 342-345 (1993).
6) Dagnelie G, Massof RW. Sub-microvolt electroretinograms: negotiating the pitfalls of electricity and noise. *Noninvasive Assessment of the Visual System*, Technical Digest 94-2 (Optical Soc Am), 354-357 (1994).
7) Dagnelie G. [Vision restoration: new developments on the threshold of the 21st century] (in Dutch). Klinische Fysica **1996/1**, 10-13 (1996).
8) Dagnelie G, Humayun H, Greenberg R, de Juan Jr E. The physiological connection: stimulating the human and amphibian retina. *Proc IEEE Intl Conf on Neural Networks 1997*, 2012-2017.

9) Dagnelie G. Testing vision beyond legal blindness: early beginnings of a visual function test battery. *Vision Science and its Applications*, Technical Digest 98-1 (Optical Soc Am), 54-57 (1998).
10) Dagnelie G, Vogelstein JV. Phosphene Mapping Procedures for Prosthetic Vision. *In: Vision Science and its Applications*, OSA Technical Digest (Optical Society of America, Washington DC, 1999), pp. 294-7.
11) Dagnelie G. Simulations of prosthetic vision in sighted observers. Presented at the 1999 NINDS Neural Prosthesis Workshop.
12) Dagnelie G, Thompson RW, Barnett GD, Zhang W. Simulated prosthetic vision: Perceptual and performance measures. *In: Vision Science and its Applications*, OSA Technical Digest (Optical Society of America, Washington DC, 2001), pp. 43-46.
13) Rolkosky DJ, Dagnelie G, Kramer K, Havey G, Seifert GJ. (2009). "Calibration tools for PC-based vision assessment." *Conf Proc IEEE Eng Med Biol Soc* 1: 781-4.
14) Hedin DS, Seifert GJ, Dagnelie G, Havey GD, Knuesel RJ, Gibson PL. Thermal imaging aid for the blind. *Conf Proc IEEE Eng Med Biol Soc* 2006;1:4131-4.
15) Humayun MS, Dorn JD, Ahuja AK, Caspi A, Filley E, Dagnelie G, Salzmann J, Santos A, Duncan J, Dacruz L, Mohand-Said S, Eliott D, McMahon MJ, Greenberg RJ. (2009). "Preliminary 6 month results from the Argus™ II epiretinal prosthesis feasibility study." *Conf Proc IEEE Eng Med Biol Soc* 1: 4566-8.
16) Rolkosky DJ, Dagnelie G, Kramer K, Havey G, Seifert GJ. Calibration tools for PC-based vision assessment. Conf Proc IEEE Eng Med Biol Soc **1**, 781-4 (2009).

Peer-reviewed abstracts:

1) van der Marel EH, Dagnelie G, Spekreijse H. Pattern EPs in Awake Rhesus Monkeys Recorded with Cranial and Subdural Electrodes. *Neurosci Lett* **7S**, S42 (1981).
2) Dagnelie G, van der Marel EH, Spekreijse H. Cranial, Subdural and Intracortical Responses to Visual Stimuli in the Awake Rhesus Monkey. *Soc Neurosci Abstr* **7**, 176 (1981).
3) Dagnelie G, Maier J, Spekreijse H. Visually Evoked Potentials to Contrast Stimuli Recorded at the Subcortical, Epicortical and Scalp Level. *Soc Neurosci Abstr* **9**, 370 (1983).
4) Dagnelie G, Maier J, Spekreijse H. Edge- vs Local Luminance-Associated Properties of the Visually Evoked Potential in Awake Rhesus Monkey. *Neurosci Lett* **14S**, S80 (1983).
5) Maier J, Dagnelie G, Spekreijse H. Source Estimation of Cortical Responses to Pattern Stimuli in Alert Rhesus Monkey Using Principal Component Analysis. *Neurosci Lett* **18S**, S74 (1984).
6) Dagnelie G, Maier J, Spekreijse H. Local Flicker Versus Contrast Mechanisms Reflected in Perception of Motion Versus Temporal Pattern Modulation. *Perception* **13**, A29 (1984).
7) Dagnelie G, Maier J, Spekreijse H. The Onset-Offset Evoked Potential to Moving Patterns; General Characteristics in Man and Alert Monkey. *Invest Ophthalmol Vis Sci* **26S**, 7 (1985).
8) Dagnelie G, Maier J, Spekreijse H. Encoding of Motion in Striate Cortex: Implications for Detector Models. *OSA Annual Meeting Technical Digest*, 106 & *Optics News* **11**, 134 (1985).
9) Dagnelie G, Maier J, van Dijk B, Spekreijse H. The Application of Principal Components Analysis to Electrophysiological Mass Responses. *Invest Ophthalmol Vis Science* **27S**, 243 (1986).
10) Dagnelie G. Adaptive Filter Model for Striate Cortical Processing of Spatial Information. *OSA Annual Meeting Technical Digest*, 117 & *Optics News* **12**, 196 (1986).
11) van Dijk B, Dagnelie G, Spekreijse H. Pattern Responses from Monkey Primary Visual Cortex: Retinotopic Map and Receptive Field Properties. *Soc Neurosci Abstr* **12**, 1497 (1986).
12) Dagnelie G, van Dijk BW, Spekreijse H. Visual Motion Processing in Primate Area 17: Evidence from Mass Neuronal Activity. *Soc Neurosci Abstr* **12**, 1497 (1986).
13) Dagnelie G, Massof RW, Marcus S. On the Relation of Foveal Flash-on-Flash Threshold Abnormalities to Temporal Resolution in Retinitis Pigmentosa. *Invest Ophthalmol Vis Sci* **28S**, 237 (1987).
14) Dagnelie G. Pattern and Motion Processing in Primate Visual Cortex: A Study in Visually Evoked Potentials. *Diss Abstr Internat* **47**, 4786-B (1987).
15) van Dijk B, Dagnelie G, Spekreijse H. Motion Onset and Offset Evoked Potentials From Alert Rhesus Monkey. *Internat J Neurosci* **34**, 163 (1987).
16) Dagnelie G, Massof RW. From Perimeter Chart to Retina: Projection in a Schematic Eye. *OSA Annual Meeting Technical Digest*, 128 & *Optics News* **13**/9, 161 (1987).
17) Dagnelie G, Massof RW. Foveal Cone System Sensitivity Parameters in Relation to the Stage of Retinitis Pigmentosa Progression. *Invest Ophthalmol Vis Sci* **29S**, 316 (1988).
18) Dagnelie G. Narrowing the gap between physiology and perception: VEPs as a tool to study linking propositions. *OSA Annual Meeting*, Technical Digest 88-11 (Optical Soc Am), 77 (1988).

19) Dagnelie G, Massof RW. Progressive foveal cone involvement in Retinitis Pigmentosa documented by changes in threshold foveal flicker sensitivity. *Invest Ophth Vis Sci* **30S**, 306 (1989).
20) Dagnelie G, Massof RW. Impaired timing of foveal and parafoveal photoreceptors in Retinitis Pigmentosa. *Invest Ophthalmol Vis Sci* **31S**, 496 (1990).
21) Dagnelie G. Temporal impulse response from flicker sensitivity: fine-tuning the Stork-Falk procedure. *OSA Annual Meeting*, Technical Digest 90-15 (Optical Soc Am), 68 (1990).
22) Dagnelie G, Schuchard RA. Fixation stability during perimetry: analysis of SLO data collected in low vision observers. *Optom Vis Sci* **69S**, 29 (1992).
23) Dagnelie G, Sunness J, Palmer RW, Finkelstein D, Massof RW. Unilateral and asymmetric retinitis pigmentosa: incidence and long-term follow-up. *Invest Ophthalmol Vis Sci*, **34**, 1368 (1993).
24) Dagnelie G, Massof RW. Photovoltaic 'responses' in the erg: a caveat when recording in the sub-microvolt range. *Optom Vis Sci* **70S** (1993).
25) Dagnelie G, McCloskey M. Developmental deficit in visual object localization: electrophysiological correlate. *Invest Ophthalmol Vis Sci*, **35**, 1775 (1994).
26) Dagnelie G, Schuchard RA. Fixation patterns during perimetry in patients with central scotomas. *Invest Ophthalmol Vis Sci*, **36**, S523 (1995).
27) Massof RW, Baker FH, Dagnelie G, DeRose JL, Alibhai S, Deremeik JT, Ewart C. Low vision enhancement system: improvements in acuity and contrast sensitivity. *Optom Vis Sci* **72S** (1995).
28) Dagnelie G. Spatiotemporal 2-dimensional Gabor (ST2DG): a PC-based test for assessment of spatiotemporal contrast sensitivity. *Invest Ophthalmol Vis Sci*, **37**, S733 (1996).
29) Dagnelie G, Sunness JS, de Juan Jr E, Humayun MS. A test battery to monitor visual function in blind volunteers for retinal cell transplantation. *Invest Ophthalmol Vis Sci*, **38**, S333 (1997).
30) Massof RW, Baker FH, Deremeik JT, Glasner NM, Alibhai SS, Dagnelie G. Functional outcome of low vision rehabilitation. *Optom Vis Sci* **75S** (1998).
31) Dagnelie G, Humayun MS, De Juan E. Visual function test battery for individuals with severely impaired sight: psychophysical components. *Invest Ophthalmol Vis Sci*, **40**, S766 (1999).
32) Giger-Mateeva V, Dagnelie G. Visual function test battery for individuals with severely impaired sight: electrophysiological components. *Invest Ophthalmol Vis Sci*, **40**, S713 (1999).
33) Zorge I, McDonald TM, Dagnelie G. Lutein improves visual function in some patients with congenital retinal degenerations - a pilot study via internet. *Invest Ophthalmol Vis Sci*, **40**, S679 (1999).
34) Dagnelie G, Melia BM, Moy CS, Anderson GF, Tielsch JM, Zhang N, Shaffer T, Friedman SM. Effects of visually impairing eye disease: A Medicare claims study. *Invest Ophthalmol Vis Sci*, **41**, S296, #1563 (2000).
35) Thompson RW, Barnett D, Humayun M, Dagnelie G. Reading speed and facial recognition using simulated prosthetic vision. *Invest Ophthalmol Vis Sci*, **41**, S860, #4571 (2000).
36) Dagnelie G, Thompson RW, Barnett GD, Zhang WQ. Visual perception and performance under conditions simulating prosthetic vision. *Perception* **29(S)**: ECVP Abstr Suppl (2000).
37) Dagnelie G, Thompson RW, Humayun MS. Face discrimination and reading speed tested with simulated prosthetic vision. *Optom Vis Sci* **77S** (2000).
38) Dagnelie G, Melia M. Increased morbidity and mortality in the elderly associated with visually impairing eye disease. *Optom Vis Sci* **77S** (2000).
39) Dagnelie G, Hayes J, Zhang W, Piyathaisere D, Weiland J, Humayun MS. Simple daily living activities using simulated prosthetic vision. *Invest Ophthalmol Vis Sci*, **42**, S942, #5047 (2001).
40) Dagnelie G, Yang L, Eshraghi F, Lewis NL, Hicks JC. Validated vision test battery for the home PC. *Invest Ophthalmol Vis Sci*, **43**, #3811 (2002).
41) Eshraghi F, Bourdeau DE, Lewis NL, Dagnelie G. Validated electrophysiology measures in severe vision loss. *Invest Ophthalmol Vis Sci*, **43**, #3812 (2002).
42) Dagnelie G. Using simulations to explore the properties of prosthetic vision. The Eye and the Chip, Second World Congress on Artificial Vision, Detroit, Jun 6-9, 2002.
43) Dagnelie G. Visual performance under simulated conditions of prosthetic vision. *J of Vision* **2**(10), 4, OSA Fall Vision Meeting (2002).
44) Dagnelie G. Designing the elements for a prosthetic vision rehabilitation curriculum. *Optom Vis Sci* **79**, S278 (2002).
45) Eshraghi F, Dagnelie G. Validation of PC-based visual function measures for use in clinical trials. *Optom Vis Sci* **79**, S233 (2002).
46) Adackapara C, Dagnelie G, Sunness JS, Eshraghi F, Bourdeau D. Following macular edema in RP patients: Comparing Optical Coherence Tomography (OCT) to clinical evaluation. *Invest Ophthalmol Vis Sci*, **44**, #4951 (2003).

47) Bittner A, Eshraghi F, Dagnelie G, Stone J. Validated Psychophysical Measurements in Severe Vision Loss. *Invest Ophthalmol Vis Sci*, **44**, #1801 (2003).
48) Dagnelie G, Melia BM, Sunness JS. Lutein supplementation in RP: Vision measures in the clinic. *Invest Ophthalmol Vis Sci*, **44**, #780 (2003).
49) Dagnelie G. Phosphene mapping strategies for cortical visual prosthesis recipients. *J of Vision*, **3**(9), #222 (2003).
50) Kelley AJ, Yang L, Hess D, Yin V, Dagnelie G. Comparison of presentation modes for reading and face recognition in simulated prosthetic vision. *J of Vision* **3**(12), 58, OSA Fall Vision Mtg (2003).
51) Dagnelie G, Yang L, Bahrami H, Stone J, Melia M. Vision tests for the home PC: Test validation and results from a lutein supplementation trial. *J of Vision* **3**(12), 57, OSA Fall Vision Mtg (2003).
52) Bittner A, Eshraghi F, Mladenovich D, Dagnelie G. Validated psychophysical measures in severe vision loss. *Optom Vis Sci* **80**, S202 (2003).
53) Mladenovich D, Bahrami H, Yang L, Dagnelie G. Comparison of PC-based to lab-based vision test results in an rp lutein supplementation trial. *Optom Vis Sci* **80**, S203 (2003).
54) Dagnelie G, Yang L, Kelley AJ. Exploring the effects of image stabilization on simulated prosthetic vision. *Optom Vis Sci* **80**, S25 (2003).
55) Dagnelie G, Kelley AJ, Yang L. Effects of image stabilization on face recognition and virtual mobility using simulated prosthetic vision. *Invest Ophthalmol Vis Sci*, **45**, ARVO abstract #4223 (2004).
56) Kalpin S, Dagnelie G, Yang L. Multi-Spectral Image Fusion for Application to Visual Prosthetics. *Invest Ophthalmol Vis Sci*, **45**, ARVO abstract #4192 (2004).
57) Bahrami H, Melia M, Yang L, Stone J, Bourdeau D, Eshraghi F, Mladenovich D, Dagnelie G. The Effect of Lutein Supplementation in Preservation of Visual Function in Retinitis Pigmentosa; A Randomized Double-Blind Placebo-Controlled Clinical Trial. *Invest Ophthalmol Vis Sci*, **45**, ARVO abstract #5161 (2004).
58) Kelley AJ, Yang L, Dagnelie G. The effects of stabilization, font scaling and practice on reading in simulated prosthetic vision. *Invest Ophthalmol Vis Sci*, **45**, ARVO abstract #5436 (2004).
59) Mladenovich D, Bittner A, Dagnelie G. Validated Electrophysiological Measures of Visual Function in Legal Blindness. *Invest Ophthalmol Vis Sci*, **45**, ARVO abstract #5441 (2004).
60) Bittner AK, Baker F, Mladenovich D, Dagnelie G. Fixation Controlled AVIAS Static Perimetry in Legally Blind RP and MD Patients. *Invest Ophthalmol Vis Sci*, **45**, ARVO abstract #5451 (2004).
61) Dagnelie G. Looking ahead: Simulating prosthetic vision in action. The Eye and the Chip, Third World Congress on Artificial Vision, Detroit, Jun 24-27, 2004.
62) Dagnelie G. Prosthetic vision for the blind: The future in sight? *J of Vision OSA* **4**(11), 8, OSA Fall Vision Mtg (2004).
63) Bittner AK, Dagnelie G. Individual reliability of psychophysical measures in legally blind subjects. *Optom Vis Sci* **81**, S264,#59 (2004).
64) Bowie HM, Bittner AK, Dagnelie G. Reliability of PC-based color vision tests in retinitis pigmentosa(rp) and control subjects. *Optom Vis Sci* **81**, S110,#10 (2004).
65) Dagnelie G, Legge G, Yang L, and Kalpin S. Visual performance with spectrally augmented imagery: A tool for severely impaired and prosthetic vision. *Invest Ophthalmol Vis Sci* **46**, ARVO abstract #1490 (2005).
66) Bittner AK, Bowie H, Chow AY, Dagnelie G, ASR Study Group. Repeatability of the Grating Acuity Test in Advanced Retinitis Pigmentosa (RP). *Invest Ophthalmol Vis Sci*, **46**, ARVO abstract #517 (2005).
67) Bahrami H, Dagnelie G. Natural History of Retinitits Pigmentosa; Changes in Visual Acuity, Contrast Sensitivity, and Visual Field. *Invest Ophthalmol Vis Sci*, **46**, ARVO abstract #529 (2005).
68) Bowie HM, Bittner AK, Chow A, Dagnelie G, ASR Study Group. Repeatability of Projected MNRead Tests in Advanced Retinitis Pigmentosa Subjects. *Invest Ophthalmol Vis Sci*, **46**, ARVO abstract #4588 (2005).
69) Dagnelie G, Yang L, Walter M. Visual detection and eye-hand coordination under free-viewing and gaze-locked pixelized conditions: Implications for prosthetic vision. *Perception* **34(S)**:16, ECVP abstract (2005).
70) Kiser AK, Deschler E, Nanji A, West E, Dagnelie G. Effects of blue light filters on dark-adapted visual function and performance in early AMD. *Optom Vis Sci* **82**, AAO E-abstr # 055222 (2005).

71) Schuchard RA, Chow A, Barnes C, Kotowski J, Dagnelie G, Pollack J, ASR® Device Study Group. Contrast Sensitivity in People With the Subretinal Artificial Silicon Retina™ Microchip Device. *Invest Ophthalmol Visual Sci* **47**, ARVO E-abstr #3210 (2006).
72) Kiser AK, Dagnelie G, Schuchard RA, Pollack JS, Chow AYK, ASR® Device Study Group. Changes in Visual Field Among RP Subjects Implanted With the Optobionics' ASR™ Device. *Invest Ophthalmol Visual Sci* **47**, ARVO E-abstr #3213 (2006).
73) Wang L, Yang L, Sahajwani S, Dagnelie G. Conquering the Maze: Virtual Mobility Performance with Simulated Prosthetic Vision. *Invest Ophthalmol Visual Sci* **47**, ARVO E-abstr #3687 (2006).
74) Dagnelie G, Massof RW, Turano KA, ASR® Study Group, Kiser AK, Schuchard RA, Pollack JS. Correlation of Self-reported and Measured Visual Function and Mobility Changes in Recipients of the ASR device. *Invest Ophthalmol Visual Sci* **47**, ARVO E-abstr #5682 (2006).
75) Dagnelie G. Simulation Revisited: A Roadmap towards Understanding Prosthetic Vision. The Eye and the Chip, Fourth World Congress on Artificial Vision, Detroit, Jun 15-18, 2006.
76) Kiser A, Yang L, Brown J, Dagnelie G. Use of complementary and alternative medicine (cam) by retinitis pigmentosa (rp) patients. *Optom Vis Sci* **83**, AAO E-abstr # 065094 (2006).
77) Kiser A, Hiremath K, Kotowski J, Chow AYK, Dagnelie G. Novel visual acuity, contrast sensitivity, and color vision test validation in legally blind patients. *Optom Vis Sci* **83**, AAO E-abstr # 065098 (2006).
78) Dagnelie G, Kramer KM, Seifert GJ, Yang L, Havey GD. The Eye Pod: A Calibration And Monitoring Tool For Screen-based Vision Research. *Invest Ophthalmol Visual Sci* **48**, ARVO E-abstr #3565 (2007).
79) Kiser AK, Yang L, Dagnelie G. Reported Benefits of Complementary and Alternative Medicine (CAM) Use by Retinitis Pigmentosa (RP) Patients. *Invest Ophthalmol Visual Sci* **48**, ARVO E-abstr #3722 (2007).
80) Wang L, Yang L, Duval D, Dagnelie G. Pursuit Eye Movement Initiation and Accuracy Are Affected by Implant Location in Simulated Prosthetic Vision. *Invest Ophthalmol Visual Sci* **48**, ARVO E-abstr #2565 (2007).
81) Mueller V, Wang L, Ostrin LA, Barnett GD, Dagnelie G, Meander Mazes: Eye-Hand Coordination in Simulated Prosthetic Vision. *Invest Ophthalmol Visual Sci* **48**, ARVO E-abstr #2548 (2007).
82) Schuchard RA, Dagnelie G, Pollack J, Kotowski J, Chow A, ASR® Device Study Group. Evaluation of the ASR Device® for the Treatment of Vision Loss From Retinitis Pigmentosa: Phase II Study. *Invest Ophthalmol Visual Sci* **48**, ARVO E-abstr #4445 (2007).
83) Ostrin LBA, Kiser A, Mladenovich D, Eshraghi F, Bourdeau D, Giger-Mateeva V, Dagnelie G. Full-field Electroretinography in Severely Visually Impaired Patients. *Optom Vis Sci* **84**, AAO E-abstr # 075104 (2007).
84) Dagnelie G, Schuchard RA, Kotowski J, Kiser AK, Pollack JK, Packo K, Chow A, ASR Study Group. Two-Year Central Visual Field Follow-Up in the ASR® Device Feasibility Trial. *Invest Ophthalmol Visual Sci* **49**, ARVO E-abstr #2187 (2008).
85) Eng JG, Agrawal RN, Ross-Cisneros FN, Dagnelie G, Greenberg RJ, Weiland JD, Sadun AA, Humayun MS. Comparison of Activated Cortical Area Between Light and Electrical Stimulation in Rabbit Retina by Positron Emission Tomography. *Invest Ophthalmol Visual Sci* **49**, ARVO E-abstr #1777 (2008).
86) Ostrin LA, Duval DC, Barry M, Dagnelie G. Meander Mazes: Using Simulations of Extremely Limited Prosthetic Vision to Guide Hand Movement. *Invest Ophthalmol Visual Sci* **49**, ARVO E-abstr #3029 (2008).
87) Kiser AK, Yang L, Kiser DA, Dagnelie G. Photopsias : A Common Phenomenon Reported by Retinitis Pigmentosa (RP) Patients. *Invest Ophthalmol Visual Sci* **49**, ARVO E-abstr #3152 (2008).
88) Troyk PR, Srivastava N, Dagnelie G, Kufta C, McCreery D, Schmid E, Towle V. Human Psychophysical Testing to Access the Feasibility of an Intracortical Visual Prosthesis. *Invest Ophthalmol Visual Sci* **49**, ARVO E-abstr #5874 (2008).
89) Dagnelie G. Modeling performance with retinal and cortical prostheses. The Eye and the Chip, Fifth World Congress on Artificial Vision, Detroit, Jun 12-14, 2008.
90) Dagnelie G, Yang L. Using simulated prosthetic vision to determine requirements for prosthetic vision rehabilitation. Vision2008, 9th Intl Conf on Low Vision, Montreal, QC (2008).
91) Dagnelie G. Mobility with a simulated retinal prosthesis in real and virtual buildings. Vision2008, 9th Intl Conf on Low Vision, Montreal, QC (2008).
92) Dagnelie G, Havey G, Kramer K, Seifert G. Bringing outcome measurement to the patient: Design of a calibration system for PC-based vision testing. Vision2008, 9th Intl Conf on Low Vision, Montreal, QC (2008).

93) Dagnelie G. Retinal and higher visual prosthetics. Vision2008, 9th Intl Conf on Low Vision, Montreal, QC (2008).
94) Dagnelie G, Yang L. Meander Mazes: a Tool for Simulation, Assessment and Rehabilitation of Prosthetic Vision. *Optom Vis Sci* **85**, AAO E-abstr # 080079 (2008).
95) Dagnelie G, Barry M, Yang L. Effects of Gaze-locking on Visual Performance Under Simulated Prosthetic Vision (SPV) Conditions. *Invest Ophthalmol Visual Sci* **50**, ARVO E-abstr #4234 (2009).
96) Gulati R, Roser M, Torr-Brown S, Jeong A, Dagnelie G. A Comparison Study of the Visual & Memory Stimulating (VMS) Grid® and the Amsler grid as Self-monitoring tools for Age-related Macular Degeneration. *Invest Ophthalmol Visual Sci* **50**, ARVO E-abstr #950 (2009).
97) McMahon MJ, Dorn JD, Ahuja AK, Caspi A, Filley E, Dagnelie G, Greenberg RJ. The Argus II Retinal Prosthesis Enables Blind Subjects to Localize Objects. *Invest Ophthalmol Visual Sci* **50**, ARVO E-abstr #4589 (2009).
98) Ahuja AK, Dorn JD, Caspi A, Filley E, Dagnelie G, Greenberg RJ, McMahon MJ. The Argus II Retinal Prosthesis Enables Blind Subjects to Identify the Direction of Motion. *Invest Ophthalmol Visual Sci* **50**, ARVO E-abstr #4590 (2009).
99) Bittner AK, Diener-West M, Haythornthwaite J, Yang L, Dagnelie G. Fluctuations in Vision Associated With Sleepiness and Perceived Stress in Retinitis Pigmentosa. *Invest Ophthalmol Visual Sci* **50**, ARVO E-abstr #4741 (2009).
100) Kiser AK, Adackapara C, Dagnelie G. Increased variability of pc-based visual acuity and contrast sensitivity is related to reduced macular thickness in retinitis pigmentosa. *Optom Vis Sci* **86**, AAO E-abstr # 090079 (2009).
101) Dagnelie G, Torr-Brown S, Gulati R, Jeong A, Roser M. Use and appreciation of the VMS™ self-monitoring grid by patients with established AMD *Optom Vis Sci* **86**, AAO E-abstr # 090988 (2009).
102) Bittner AK, Ibrahim MA, Diener-West M, Dagnelie G. Increased variability of PC-based visual acuity and visual field is partly related to reduced macular thickness in retinitis pigmentosa. *Invest Ophthalmol Visual Sci* **51**, ARVO E-abstr #1376 (2010).
103) Humayun MS, da Cruz L, Dagnelie G, Mohand-Said S, Stanga P, Agrawal RN, Greenberg RJ, Argus II Study Group. Interim performance results from the Second Sight® Argus™ II retinal prosthesis study. *Invest Ophthalmol Visual Sci* **51**, ARVO E-abstr #2022 (2010).
104) daCruz L, Coley B, Christopher P, Merlini F, Wuyyuru V, Sahel JA, Stanga P, Filley E, Dagnelie G, Argus II Study Group. Patients blinded by outer retinal dystrophies are able to identify letters using the Argus™ II retinal prosthesis system. *Invest Ophthalmol Visual Sci* **51**, ARVO E-abstr #2023 (2010).
105) Dagnelie G, Ahuja AK, McMahon MJ, Cideciyan AV, Locke KG, Argus™ II Study Group, Greenberg RJ. Dark-adapted flash sensitivity remains stable up to 2½ years after Argus™ II implantation. *Invest Ophthalmol Visual Sci* **51**, ARVO E-abstr #3029 (2010).
106) Barry MP, Dagnelie G, Argus II Study Group. Use of the Argus™ II Retinal Prosthesis to Improve Visual Guidance of Fine Hand Motion. *Invest Ophthalmol Visual Sci* **51**, ARVO E-abstr #3047 (2010).
107) Ahuja AK, Dorn JD, Caspi A, McMahon MJ, Dagnelie G, da Cruz L, Filley E, Greenberg RJ, Argus II Study Group. Subjects Implanted With the Argus™ II Retinal Prosthesis Are Able to Improve Performance in a Spatial-Motor Task. *Invest Ophthalmol Visual Sci* **51**, ARVO E-abstr #4322 (2010).
108) Dagnelie G, Stronks HC. Visual function without photoreceptors: noninvasive recording of retinal and functional responses to the Argus™ II retinal prosthesis. Vision Science 2010, Munich, Germany, June 9-11, 2010.
109) Stronks HC, Dagnelie G. Noninvasive recording of retinal and functional responses to the Argus™ II retinal prosthesis. The Eye and the Chip, Sixth World Congress on Artificial Vision, Detroit, Sept 13-15, 2010.
110) Bittner AK, Haythornthwaite J, Diener-West M, Dagnelie G. RP patients' periodic reports of worse vision are measurable and associated with perceived stress, moods, dim light exposure, and decreases in health. *Optom Vis Sci* **87**, AAO E-abstr # 105016 (2010).
111) Humayun MS, da Cruz L, Dagnelie G, Sahel JA, Stanga PE, Filley E, Eliott D, Duncan JL, Greenberg RJ. Interim Performance Results from the Second Sight Argus II Retinal Prosthesis Study. *Invest Ophthalmol Visual Sci* **52**, ARVO E-abstr #2594 (2011).
112) Wei J, Wuyyuru V, da Cruz L, Dagnelie G, Greenberg RJ, Argus II Study Group. The Effect of Frequency and Pulse Width on Perceptual Thresholds in Argus II Retinal Implant Subjects. *Invest Ophthalmol Visual Sci* **52**, ARVO E-abstr #4948 (2011).
113) Barry MP, Dagnelie G, Stronks HC, Argus II Study Group. Use of the Argus II Retinal Prosthesis to Augment Auditory Information in a Tracing Task. *Invest Ophthalmol Visual Sci* **52**, ARVO E-abstr #4962 (2011).

114) Stronks HC, Dagnelie G, Barry MP, Argus II Study Group. Electrically Evoked Electroretinograms of Argus™ II Retinal Prosthesis Wearers. *Invest Ophthalmol Visual Sci* **52**, ARVO E-abstr #4969 (2011).
115) Jeter PE, Dagnelie G, Bittner AK. Yoga As A Treatment Modality For Persons With Severe Visual Impairment: A Feasibility Study. *Invest Ophthalmol Visual Sci* **52**, ARVO E-abstr #5576 (2011).
116) Bullimore M, Dagnelie G, Bittner AK, Saperstein D, Koenekoop R. Initial efficacy of oral chromophore qlt091001 for Leber Congenital Amaurosis patients with lrat or rpe65 mutations. *Optom Vis Sci* **88**, AAO E-abstr # 110920 (2011).
117) Dagnelie G, Stronks HC. Using the electrically evoked electroretinogram (eERG) to explore visual processing in Argus II retinal implant wearers. *Optom Vis Sci* **88**, AAO E-abstr # 115060 (2011).
118) Dagnelie G, Bittner AK, IRD01 Study Group. Positive Effect of Operator Training on Goldmann Visual Field Test-retest Reliability *Invest Ophthalmol Visual Sci* **53**, ARVO E-abstr #4600 (2012).
119) Koenekoop RK, Esteban E, Wood L, Sui R, Sallum JM, Traboulsi EI, van den Born LI, Bittner AK, Dagnelie G, Saperstein D. Update on QLT091001 in Subjects with Leber Congenital Amaurosis (LCA) due to Lecithin:Retinol Acyltransferase (LRAT) or Retinal Pigment Epithelial 65 Protein (RPE65) mutations: Longer-term follow-up of subjects originally treated with 7-day therapy. *Invest Ophthalmol Visual Sci* **53**, ARVO E-abstr #4??? (2012).
120) Roser MC, Bittner AK, Arnold E, Beaton P, Torr-Brown S, Dagnelie G. A Randomized Controlled Trial of Vision Self-monitoring Tools in Non-Neovascular Age-Related Macular Degeneration Subjects. *Invest Ophthalmol Visual Sci* **53**, ARVO E-abstr #5180 (2012).
121) Barry MP, Dagnelie G, Stronks HC. Successful Target Identification with the Argus® II Retinal Prosthesis. *Invest Ophthalmol Visual Sci* **53**, ARVO E-abstr #5509 (2012).
122) Stronks HC, Dagnelie G, Barry MP, Argus II Study Group. Reducing Artifacts in the Electrically Evoked Retinogram (eERG) of Argus® II Retinal Prosthesis Wearers. *Invest Ophthalmol Visual Sci* **53**, ARVO E-abstr #5510 (2012).
123) Dorn JD, Geruschat D, Dagnelie G, Argus II Study Group. Functional vision and quality of life of Argus® II Retinal Prosthesis System users as measured by the Functional Low-vision Observer Rated Assessment (FLORA). *Invest Ophthalmol Visual Sci* **53**, ARVO E-abstr #5511 (2012).
124) Jeter PE, Dagnelie G, Khan M, Bittner AK. Reported Decreases in Vision During and After Pregnancy in Women with Retinitis Pigmentosa. *Invest Ophthalmol Visual Sci* **53**, ARVO E-abstr #5632 (2012).
125) Humayun MS, , Dagnelie G, Argus II Study Group. *Invest Ophthalmol Visual Sci* **53**, ARVO E-abstr #???? (2012).

Other contributed conference presentations:

1988 Workshop on Visual System Analysis, Tuebingen, Germany
1993 NINDS Neural Prosthesis Workshop, Bethesda, MD
1994 NINDS Neural Prosthesis Workshop, Bethesda, MD
1997 IEEE International Conference on Neural Networks, Dallas, TX
1998 NINDS Neural Prosthesis Workshop, Bethesda, MD
2001 FASEB Biennial Conference on Carotenoids, Ventura, CA
2002 ISCEV @ ARVO Meeting, Ft. Lauderdale, FL
2003 Department of Energy Workshop on Artificial Vision, Ft. Lauderdale, FL
2004 American Public Health Association, Washington DC
2005 Department of Energy Workshop on Artificial Vision, Ft. Lauderdale, FL
2010 Vision Science 2010 Symposium in honor of Dr. Geoffrey Arden, Munich, Germany

Conference organization:

2004, 2006, 2007 ARVO Annual Meeting, Special Interest Groups
2005 ARVO Annual Meeting, Minisymposium

Departmental research presentations:

1987, 1995, 1996, 1998, 2002, 2003 Wilmer Residents Association Meeting
1999, 2000, 2001, 2002, 2003, 2006 Wilmer Research Meeting
1998, 2005, 2011 Wilmer Friday Afternoon Research Meeting
1995 Wilmer grand rounds:

Community-oriented education presentations:

5/1995 Southern Dames of America, MD Society, Towson, MD: Vision restoration technologies
3/1996 Netherlands Society for Retinitis Pigmentosa, Utrecht (in dutch)

11/1997	Prevention of Blindness Assn, Sibley Hospital, Washington DC: Novel vision restoration technologies
3/2004	Independence and Information for the Blind, Washington, DC: Vision restoration technologies
1986-2004	Foundation Fighting Blindness Baltimore area affiliate: biennial research updates
1989-present	Multiple District 22 Lions Club, regional, and Lions vision Research Foundation meetings: 4-6 eye research update presentations annually

Other professional experience:

1975 - 1976: Physics teacher, Hervormd Lyceum Zuid (high school), Amsterdam, Netherlands