

**PART I: General Information**

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**Place of Birth:** London, UK  
**Date of Birth:** January 31, 1955  
**Citizenship:** United States

**Education:**

YEAR	DEGREE	INSTITUTION
1977	A.B.(summa cum laude)	Princeton University
1981	Ph.D. (Psychology)	MIT

Doctoral Thesis: On Binocular Single Vision.  
Advisor: Richard Held

**Academic Appointments:**

Beginning	Ending	Title	Institution
1981	1983	Lecturer, Psychology	MIT
1983	1986	Assistant Professor, Psychology	MIT
1986	1987	Assistant Professor, Brain and Cognitive Sciences	MIT
1987	1991	Associate Professor, Brain and Cognitive Sciences,	MIT
1988	1991	Class of 1922, Associate Professor,	MIT
1991		Senior Lecturer ,	MIT
1991	2002	Associate Prof, Ophthalmology	Harvard Medical School
2002		Professor of Ophthalmology	Harvard Medical School
2003		Faculty Affiliate, Div. Sleep Med.	Harvard Medical School
2010		Professor of Radiology	Harvard Medical School

**Hospital Appointments:**

Beginning	Ending	Title	Institution
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1991		Psychophysicist	BWH/Surgery
1991	2010	Director of Psychophysical Studies, Center for Clinical Cataract Research (then Center for Ophthalmic Research)	BWH/Surgery
2010		Director, Visual Attention Lab	BWH/Surgery
2010		Director, Center for Advanced Medical Imaging (CAMI)	BWH/Radiology

**Other Appointments:**

Beginning	Ending	Title	Institution
1991	2002	Visiting Associate Professor,	MIT, Brain & Cog Sci
1993	1994	Visiting Associate Prof,	Brown U, Cog. Sci.
1993	2003	Adjunct Associate Prof,	Boston U. CNS
2003	2011	Adjunct Professor,	Boston U. CNS
2011	to date	Adjunct Professor,	Center for Computational Neuroscience and Neural Technology, Boston U.
1991	1992	Visiting Associate Professor,	Wellesley, Psychology
2002	to date	Senior Lecturer	MIT, Brain & Cog Sci
2011	2014	Honorary Professor	U. Sydney (Australia) Faculty of Health Sciences

**Major Committee Assignments:**

*External Committees, Service, etc.*

1998-2002	NIH - Member of Visual Sciences B (VISB) panel
2006-2009	Member of the Panel on Soldier Systems (Army Research Lab Technical Assessment Board - National Academy of Sciences)
2007-2008	Member of the Neuroscience Group of the Panel on Soldier Systems (Army Research Lab Technical Assessment Board - National Academy of Sciences)
2009-	Army Research Lab Technical Assessment Board (National Academy of Sciences)
2009-	National Academy of Sciences – Chair of the Panel on Soldier Systems (Army Research Lab Technical Assessment Board)
2010-	Advisory Council, Department of Psychology, Princeton U
2010-	Menu Research and Development Advisory Council, Culinary Institute of America, Hyde Park, NY
2012-	National Academy of Sciences - Board on Behavioral, Cognitive, and Sensory Sciences (BBCSS)

ad hoc reviews: NIH, NIMH, NSF, AFOSR, HFSP,  
NSERC (Canada), SERC (United Kingdom), ISF (Israel), BSF (Israel)  
NIMH-SEP (7/04)

*Internal Committees, Other Assigned Duties:*

	Beginning	Ending
Founder and Chair: MIT Program in Psychology	1987	1991
President, MIT Phi Beta Kappa chapter	1990	1991
MIT Committee on Curricula	1985	1988
MIT Committee on Independent Activities Period	1986	1990
Committees to design an integrative curriculum liberal arts	1985/86/87	1988
Committee on HASS-distribution courses outside the school of Hum, Arts, and Social Sciences	1986	1987
Steering Committee of the Cognitive Science major	1984	1991
Freshman Advisor including Advisor Seminars ('88-'90)	1981	1991
Faculty Fellow, MacGregor	1988	1989
Departmental coordinator/organizer for UROP, IAP, Vision Lunch, transfer credit etc	various periods	
Advisor to Student Peer-Counseling Hotline	1989	1991
Low Vision Search committee (Schepens Eye Res Inst)	1998	1999
Steering Committee: Center for Advanced Medical Imaging (CAMI) – BWH/Radiology	2008	

**Professional Societies**

Eastern Psychological Association  
 Program Committee (1988-1991)  
 Board of Directors: (1996-1999)  
 President (2001-2002)

American Psychological Association (APA)  
 Div 3: Program Committee Chair (2008)  
           elected, Member-at-Large, 2008-2009  
           elected President 2009 (term 2010-11)  
 Div 6 Exec. Committee: (1997-1999), Program Committee Chair (1997-1998),  
 Div 1 Exec. Committee: (2004-5), Program Committee Chair (2004),

Psychonomic Society  
 Governing Board: (2010-2015) Finance Committee (2010-11), Membership  
 Committee (2011-13), Communication Committee (2013- )  
 Chair-elect (2013)

Other Program Committees: Assoc. for Res. in Vision and Ophthalmology (ARVO) (1993-  
 1996), Cognitive Science Society (occasional, e.g. 2002)

Award Judge:            APA early career awards 1998/99  
                               Society for Experimental Psychology (2009-2013)

Current Organization Membership:

Psychonomic Society  
 American Psychological Association (fellow - Divisions 1, 3, 6, 21)  
 American Psychological Society (fellow as of 2002)  
 Eastern Psychological Association (fellow as of 2009)  
 Society for Experimental Psychology  
 American Association for the Advancement of Science (fellow as of 2002)  
 Radiological Society of North America (RSNA)

**Editorial Boards**

Editor	Attention, Perception and Psychophysics (2008-date) (previously Perception and Psychophysics)
Editorial Board	J. Exp. Psychol.: General (2007-2011)
Consulting Editor:	Visual Cognition (2005-2012)
Associate Editor:	Perception and Psychophysics (1998-2003)
Associate Editor	APA, Ency. of Psychology (1996-2000)
Ed. Advisory Board	Academic Press, Encyclopedia of the Human Brain (1998-2002)
Consulting Editor:	Perception and Psychophysics (1993-1997, 2003-2008)
Consulting Editor:	J. Exp. Psychol.: Human Perception and Performance (1989-1993)
Consulting Editor:	Spatial Vision (1991-2012)
Guest Editor:	Spatial Vision: Special Issue in Honor of Bela Julesz
Book Review Ed:	Perception (1994-2001?)
Editorial Board:	Cognitive Science (1996-2006)
Advisor:	MIT Press (1996-2001?)
Editorial Board:	Psychological Science (2009-2011)

**Honors and Awards Received:**

Phi Beta Kappa (Princeton)	1977
Summa Cum Laude (Princeton)	1977
Class of 1922 Professorship (MIT)	1988
Baker Memorial Prize (Undergraduate Teaching: MIT)	1989
Fellow of the American Psychological Association (Div 6)	1995
Fellow of the American Psychological Association (Div 3)	1997
Elected to Society of Experimental Psychologists	2001
Fellow of the American Psychological Association (Div 1)	2002
Fellow of the American Psychological Society	2002
Fellow of Am. Assoc. for the Advancement of Science	2002
Honorary Masters of Arts, Harvard U.	2003
Distinguished Scientific Contribution, New England Psychological Association	2009
Fellow of the Eastern Psychological Association	2009

Keynote Address, Association for Psychological Science 2010  
Fellow of the American Psychological Association (Div 21)2011  
Keynote Address, Asian Conf. on Visual Perception (Hong Kong) 2011

## Part II: Research and Teaching

### A. Narrative Report



Jeremy Wolfe became interested in visual perception during the course of a summer job at Bell Labs in New Jersey after his senior year in high school. He graduated summa cum laude from Princeton in 1977 with a degree in Psychology and went on to obtain his PhD in 1981 from MIT, studying with Richard Held. His PhD thesis was entitled "On Binocular Single Vision". Wolfe remained at MIT as a lecturer, assistant professor, and associate professor until 1991. During that period, he published papers on binocular rivalry, visual aftereffects, and accommodation. In the late 1980s, the focus of the lab shifted to visual attention. Since that time, he has published numerous articles on visual search and visual attention. He is, perhaps, best known for the development of the Guided Search theory of visual search. In 1991, Wolfe moved to Brigham and Women's Hospital where he is Director of the Visual Attention Lab and, since March 2010, of the Radiology Department's Center for Advanced Medical Imaging (CAMI). He is Professor of Ophthalmology at Harvard Medical School.

At present, the Visual Attention Lab works on basic problems in visual attention and their application in diverse areas such as airport security and medical screening. The lab is funded by the US National Institutes of Health, Office of Naval Research, Toshiba, and Department of Homeland Security.

CAMI's mission is to improve the consumption of medical images in radiology and elsewhere through better understanding of the perceptual and attentional demands on radiologists and by developing better ways to present medical image data to radiologists. Funding from the NIH supports studies of the effects of disease prevalence on false positive and negative error rates in mammography. Optimal use of computer aided detection (CAD) systems is funded by an ARRA stimulus grant. Funding from Toshiba supports work on improving lung nodule detection by changing the presentation of chest CT data. Other current interests (and grant proposals) include using eye tracking to monitor radiologists' search behavior and using eye movement feedback to improve performance. Radiologists are a difficult population to use as experimental observers because their time is very valuable. Part of the CAMI research strategy is to identify pieces of image consumption tasks (e.g. the effects of prevalence) that can be abstracted away from the medical imaging task and examined using methods of basic vision research (e.g. time consuming parametric variation experiments, conducted on untrained observers). These basic studies can narrow the field of potential experiments to those that will be the most cost-effective use of radiologist time. An

important longer-term goal for Wolfe as CAMI director is to make CAMI into an incubator for research by members of the Radiology department. For faculty and fellows with interests in medical image perception and related topics, CAMI is developing the infrastructure that will allow for the collection of the sort of pilot data that can then be used as the basis for seeking extramural funding.

Wolfe has taught Introductory Psychology, Psychology and Literature, and Sensation and Perception at MIT & Harvard and other universities. He is the Editor of the journal, *Attention, Perception and Psychophysics* (AP&P, formerly P&P). Wolfe is Chair-elect of the Psychonomic Society, Past-President of the Eastern Psychological Association and Past-President of Division 3 of the American Psychological Association. He was chair of the National Academy of Sciences Panel on Soldier Systems (Army Research Lab Technical Assessment Board). He won the Baker Memorial Prize for teaching at MIT in 1989. He is a fellow of the American Assoc. for the Advancement of Science, the American Psychological Association (Div. 1, 3, 6, 21), the American Psychological Society, and a member of the Society for Experimental Psychologists. He lives in Newton, Mass. with his wife, Julie Sandell (Professor of Neuroanatomy and Assoc. Provost at Boston U.), three sons (Benjamin - 26, Philip - 22, and Simon - 16), a cat, two snakes, and occasional mice.

## **B. Research Funding Information**

### *Past Funding*

- 2/82 - 2/83 NIH 1 RO3 EY04297-01 False Fusion and Binocular Vision
- 12/83 - 11/86 NIH (1 R01 EY5087) Binocular Perception Despite Stereodeficiency
- 3/85 - 2/88 Lighting Research Institute (85:SP:5)  
Focusing the Eyes: Sensory and Adaptive Properties of Accommodation
- 7/85 - 6/87 Whitaker Health Sciences Fund  
Basic Problems and Health-Related Issues in Human Vision
- 4/84 - 3/88 BRSG via MIT, Normal and Abnormal Binocular Human Vision
- 7/88 - 6/91 MIT, Class of '22 Chair
- 2/88 - 1/89 (with E. Adelson) Educational Foundation of America  
Psychophysical evaluation of a model of motion perception
- 4/93 - 3/95 NIH (F32 EY06492) (Wolfe = Sponsor)  
Individual differences in visual attention.  
(Post-doctoral fellowship for Patricia O'Neill)
- 1/96 - 1/98 NIH (F32 MH11306) (Wolfe = Sponsor)  
Circadian analysis of selective attention.

- (Post-doctoral fellowship for Todd Horowitz)
- 7/96 - 12/99 HFSP - Perception of surface properties of objects.  
(Collaboration with four other PIs: P Jolicoeur - director, S Kosslyn,  
L. Chen, G. Humphreys, W. Cowan)
- 9/97 - 9/00 NSF SBR-9710498 (PI) Post-Attentive Vision
- 7/94 – 7/99 NIH - NHLBI (RO1 - HL52992)  
(Wolfe = Investigator, PI=C. Czeisler)  
Bright light treatment of shift rotation insomnia
- 9/99 – 9/02 NIH - NORA (Wolfe = Investigator, PI=Czeisler)  
Circadian adaptation to night work in older people.
- 12/86 - 7/05 NIH - NEI (R01 EY05087) (PI)  
Psychophysical Structure of Human Vision
- 8/03-7/07 NIMH (RO1-MH065576) (Horowitz-PI, Wolfe-Investigator) Control of  
Dynamic Attention
- 9/04-9/06 NIH (F32 EY016387) (Wolfe = Sponsor)  
Serial and parallel processing in visual perception  
(Post-doctoral fellowship for David Fencsik)
- 6/93 – 11/08 Air Force Office of Scientific Research (AFOSR) (PI)  
Toward Guided Search 4.0
- 9/98 – 11/08 NIMH (RO1 - MH56020) (PI)  
Post-Attentive Vision
- 10/06 -11/08 Dept of Homeland Security  
Science and Technology (S&T) Directorate  
Grant Number 06-G-017  
Visual Dimensions of the Explosive Detection Screener Task
- 10/09 - 9/10 Harvard Catalyst (Schaumberg – PI)  
Developing a psychophysical test for dry eye.
- 7/03-6/11 NIH-NIMH (R01 MH065576) (Horowitz-PI)  
Control of Dynamic Attention
- 9/30/09 - 9/29/12 3R01EY017001-03S1 (Wolfe-PI)  
ARRA-NIH-NEI National Eye Institute  
Supplement to: Prevalence effects in visual search: Theoretical and practical implications

*Current Funding (dollar figures are TDC for current year)*

**RO1 EY017001 (Wolfe)** 4/1/07-3/31/15  
NIH-NEI \$ 250,333

Prevalence effects in visual search: Theoretical and practical implications  
The proposed research has three specific aims: 1) to test the hypothesis that prevalence effects are a potential source of errors in breast cancer and cervical cancer screening, 2) to develop and test a model of the effects of prevalence in visual search and 3) to test theoretically and clinically motivated strategies to reduce miss errors.

**ONR-MURI N000141010278 (PI-Neibur, JHU, Local PI – Wolfe)** 11/1/09-10/31/12  
Office of Naval Research \$53,000  
Figure-Ground Processing, Saliency and Guided Attention for Analysis of Large Natural Scenes

The major goals are to develop the next generation of “saliency map” hardware and software and to relate this to the guidance of attention in real scenes.

**Toshiba Corporation (Seltzer-PI, Wolfe- section PI)** 09/01/2009-  
Novel display strategies for lung nodule detection from CT scans. \$100,000

The major goals are to develop stereoscopic displays for lungCT images, to study eye movements in 3D volumes of image data, and to assess the effects of dose reduction on reader performance in lungCT.

**Google Corpotation (Wolfe-PI)** 1/1/2012-12/31/2012  
Rules of visual foraging and visual search \$71,000

This project asks how humans forage in complex scenes (like web pages or Google maps)

**National Geospatial Agency (Wolfe –PI)** 1/1/2013-  
Enhancing Visual Search by GEOINT Analysts \$119,987

How do novices and experts search overhead photographic imagery for targets of interest?

**NSF (PI – Shinn-Cunningham, Boston U, Sub-contract-Wolfe)** 3/1/2013-2/28/2015  
Building and testing VowelWorldPlus \$106,571

Coordinate the Learning And Multi-sensory Attention (LAMA) Capstone project for the BU NSF, Science of Learning Center (CELEST)

**NIH Post-doctoral fellowships** for Trafton Drew & Melissa Vo.



### C. Major Current Research Interests

Work in the laboratory can be broadly divided into Basic and Clinical/Applied topics unified by a general interest in fundamental processes vision and visual attention. We use a variety of methodologies but we are primarily a human behavioral lab using psychophysical methods.

#### *Basic Research*

1. Preattentive vision - Studies of the processing of visual stimuli before they are selected by attention for further, more complete analysis. This includes studies of the fate of stimuli that are never selected for attentional scrutiny.
2. Attentional deployment - Studies of the mechanisms by which attention selects specific items. We have a long-standing interest in the guidance of attentional deployment by preattentive information and an interest in the temporal dynamics of search including studies of how to terminate searches when no target can be found. The theoretical core of work in this lab area is our Guided Search model.
3. Post-Attentive vision - Studies of the consequences of attention. Once attention has been deployed to an item and has been removed, what are the persistent effects of that act of attention? These topics, in turn, connect to questions concerning memory for visual stimuli.
4. Searching scenes – How do humans search complex real world scenes for real objects?
5. Non-selective vision – Some aspects of visual processing do not appear to require selection of individual objects by attention. Sometimes this is called “gist”, “gestalt”, or “holistic” processing. Whatever its name, we believe that this is the product of a “non-selective” processing pathway in the visual system, operating in parallel with the selective, attentionally-bottlenecked pathway that permits object recognition.

#### *Clinical and Applied Research*

Our civilization has created a host of socially important visual tasks that can be seen as difficult visual searches through complex artificial scenes. Our basic science can be applied to these tasks and, in turn, the specific demands of these tasks stimulate new basic scientific questions.

6. The Center for Advanced Medical Imaging (CAMI) - From our vantage point, much of the work of a clinical radiologist is visual search. CAMI was founded by the BWH Radiology department as a venue to work on new ways to present and consume imaging data that will allow radiologists to deal with the explosion of images produced by modern technology.

7. Medical screening – Screening tasks like mammography or cervical cancer screening are visual search tasks for very low prevalence targets. Having studied the effects of low prevalence in the lab, we now study them in medical settings. We have a particular interest in the effects of prevalence on errors and on the interaction of prevalence effects with Computer Aided Detection (CAD) systems.
8. Airport security – Like medical screening, airport baggage screening is low prevalence search task involving complex stimuli and a strong aversion to miss errors. We are interested in behavioral interventions and modifications of the visual stimuli that could improve performance.
9. Foraging – There are numerous other tasks that involve searching massive scenes or images for what may be hard to find targets. Some of these search tasks can be characterized as foraging tasks (c.f. picking berries from a bush, satellite surveillance, or reading a whole body CT of an accident victim). Here we want to know when it is time to move to the next bush, piece of territory, or the next case given that they might always be one more target in the current stimulus.

### C. Teaching

#### 1. Local Contributions

	Title	
MIT	SP.318 Introduction to Psychology 21 students (Concourse)	Fall, 2009
MIT	Memory and Literature Psychology and Literature 15 Students ('10)	Spring, 2002,2006, 2010 w/ Chris Sawyer-Laucanno ('01) Kathlen MacArthur ('05) w/ Wyn Kelley '10
MIT	Madness and Literature 30 students (Concourse)	Spring, 2001, 2005, 2009 w/ Chris Sawyer-Laucanno w/ John Hildebidle '09
MIT	Memory and Literature Psychology and Literature 10 Students (06)	Spring, 2002,2006 w/ Chris Sawyer-Laucanno ('01) Kathlen MacArthur ('05)
MIT	Reading and Writing the Essay Psychology and Literature (Disgust) 36 students (Concourse)	Spring, 2003 w/ Chris Sawyer-Laucanno

MIT	Love and Agression Psychology and Literature 20-35 students (Concourse)	Spring, 2004, 2008 w/ Chris Sawyer-Laucanno '04 w/ Wyn Kelley '08
MIT	Permission and Prohibition Psychology and Literature 20 students (Concourse)	Spring, 2007 w/ Wyn Kelley
Harvard	PSY1150 Perception 6 students	Fall, 2007, 2008
MIT	SP.330 Psychology and Free Will 35 students (Concourse)	Fall, 2007
MIT & Harvard	Introduction to Psychology Undergraduate	1981 to 2008

**Note:** The audio recordings of lectures from Introduction to Psychology (MIT, 9.00) are posted on MIT's OpenCourseware site and were in the top 10 on iTunesUniversity (iTunesU) for most of 2007-2008.

MIT & Wellesley	Sensation and Perception Undergraduate about 30 students	w/ R Held 1980-82 Wellesley, Spring '92
MIT & Brown	Human Vision Graduate about 15 students	Brown '94 was with Leslie Welch
Brown	Visual Attention Graduate about 15 students	Spring '94
MIT	Seminars on the intersection of Visual Physiology and Psychophysics	usually w/ P Schiller
MIT	Faculty "minicourse" in Psychology	1988

Any number of lectures as part of team-taught graduate survey courses, as well as guest lectures in a variety of other courses, Vision lunch talks, Cognitive Lunch talks, lectures to Ophthalmology residents, and so forth.

*Advisory and Supervisory Responsibilities*

Project Success (a program at HMS to "open the door to biomedical careers" for under-represented minority High School students.) One or two students mentored each summer (1998-date).

Research Science Institute of the Center for Excellence in Education (a national program giving research experience to talented HS students) One or two students mentored each summer plus lecture (1996?-date).

#### Doctoral or Thesis Committee Membership

Carmen Egido (MIT)  
 Shinsuke Shimojo (MIT)  
 Joseph Scheuhammer (MIT)  
 Kyle Cave (MIT)  
 Miri Dick (Weizmann Inst, Israel)  
 Josee Rivest (Harvard)  
 Belinda Goodenough (U. New South Wales, Australia)  
 Greg Zelinsky (Brown)  
 Marvin Chun (MIT)  
 Nicholas John Reynolds (Australian National U.)  
 Vera Maljkovic (Harvard)  
 Satoru Suzuki (Harvard)  
 Diane Williams (Toronto)  
 Robert Cunningham (Boston U.)  
 Gregory Gancarz (Boston U.)  
 Michael Anes (Boston U.)  
 Arni Kristjansson (Harvard)  
 Steve Fraconeri (Harvard)  
 Richard DeVaul (MIT)  
 Todd Herrington (Harvard)  
 Ramakrishna Chakravarthi (Harvard)  
 Serena Butcher (Harvard)  
 Justin Wood (Harvard)  
 Michelle Greene (MIT)  
 Barbara Hidalgo-Sotelo (MIT)  
 Grayden Solman (U. Waterloo, Ontario, Canada)

#### Graduate Students

Gregory Gancarz (Boston U., 1993-1996)  
 Jeff Doon (Boston U., 2010-2013, Ennio Mingolla - Advisor)  
 Jinxia Zhang (2012 - , Nanjing University of Science and Technology – NUST;  
 Advisor: Jing-yu Yang)

#### Post-doctoral Students

Patricia O'Neill (1992 - 1995) - Prof. – Western Conn. U  
 Todd Horowitz (1995 - 1999) - NIH/NCI

Gary Randall (1998 - 2000) Software development - UK  
 Peter Brawn (1998 - 2000) Access Testing Centre, Sydney, Australia  
 Aude Oliva (2000 - 2002 ) Senior Research Scientist. – MIT  
 Nayantara Santhi (2000 - 2002) U. Surrey, Guilford, UK  
 Melina Kunar (2003 - 2006) Lecturer in Psychology, Warwick, UK  
 David Fencsik (2003 -2007) Asst. Prof, Cal. State East Bay  
 Evan Palmer (2003 - 2007) Asst. Prof, Wichita State, Kansas  
 Anina Rich (2005 - 2007), Asst. Prof., MACCS, Maquarie U, Sydney, NSW, Australia  
 Piers Howe (2007 –2010) Asst. Prof, U. Melbourne, Melbourne, Australia  
 Ricardo Pedersini (2007 – 2010) Postdoc, U. Rochester  
 Ester Reijnen (2008 – 2009) Staff, U.Fribourg, Switzerland  
 Yair Pinto (2008 – 2010) Postdoc, Amsterdam  
 Karla Evans (2007 –  
 Michelle Greene (2009 – 2011) Postdoc, Stanford  
 Melissa Vo (2009 –  
 Trafton Drew (2010 -

#### Research Fellows

Constance Royden (1997) now Assoc. Prof. - Holy Cross, Worcester, MA

#### Research Associates

Todd Horowitz (1999-2012) Instructor, Harvard Med  
 Kathy O'Craven (1999-2000) Asst. Prof. - U Toronto

#### Visiting Scientists (including Masters students)

Aline Bompas (2001) – Paris, France  
 Ester Reijnen (Sept-Nov, 2006) U. Basel, Switzerland  
 Yair Pinto (Dec, 2006 - June, 2007, 2009-2010) U. Amsterdam  
 Michael Zehetleitner (Mar-May, 2009) U. Munich  
 Patricia Graf (Mar – Sep, 2009), U Munich  
 Maria Nordfang (Feb – Aug, 2010, March-May, 2012), U. Copenhagen  
 Kazuya Ishibashi (Mar – Sep, 2010), Kobe U, Japan  
 Francesca Bocca (July-Sep, 2010), U Munich  
 Yasuki Noguchi (July – Sept, 2011), Kobe U, Japan  
 Lisa Pfanmuller (April – Oct, 2012), U Munich  
 Dejan Draskow (May – Oct, 2012), U Munich

## 2. Regional, National, or International Contributions

#### Selected Invited Colloquia:

Brandeis	U. Houston
Princeton U.	Wesleyan College, CN
Yale U.	Harvard U.
Brown U.	U. Delaware

NE College of Optometry  
 Tufts U, Somerville, MA  
 U. Waterloo, Ontario, Canada  
 Johns Hopkins U.  
 Ohio State  
 U. of Utah  
 Georgetown (Washington, DC)  
 U. Southern California  
 Columbia U (12/99)  
 Boston VA Hospital (12/00)  
 MIT AI lab (1/01)  
 Rice U (2/01)  
 U. Beijing Graduate School (8/01)  
 Schepens Eye Research Inst (9/01)  
 Boston U Med School (Raviola Lecture, 4/02)  
 Georgia Tech (10/02)  
 Concordia U, Montreal (2/03)  
 MGH-Navy Yard (3/03)  
 Boston U Beck Memorial Symposium (9/03)  
 Macquarie U, Sydney, Australia (1/04)  
 Dartmouth (3/04)  
 TSA/Atlantic City (10/04)  
 Columbia (3/05)  
 Analogic Corporation (6/05)  
 U Houston (11/05)  
 BWH (radiology) (1/06)  
 MIT (3/06)  
 Princeton (3/06)  
 MGH(Cytopathology) (5/06)  
 Mitsubish, Cambridge, MA (1/07)  
 Colorado, Boulder (2/07)  
 UC Davis (4/07)  
 Novartis, Cambridge, MA (9/07)  
 U Toronto (1/08)  
 Columbia U. (2/08)  
 Vanderbilt U, Nashville, TN (6/08)  
 BWH (Women's Imaging ) (9/08)  
 Mass Eye&Ear (MA) (1/09)  
 NAS False Alarm EDS meeting, San Francisco (2/09)  
 National Geospatial Agency visual search meeting, Airlie, VA (2/09)  
 Queen's U (Kingston, Ont) (2/09)  
 U. Copenhagen (7/09)  
 NE Col. Optom. Boston (10/09)  
 Johns Hopkins (2/10)  
 Johns Hopkins (9/10)  
 MIT (CSAIL) (9/10)

NIH, Bethesda, MD  
 Boston U.  
 McMaster U, Ontario, Canada  
 U. of Toronto  
 MIT  
 Shriver Center (Waltham, MA)  
 CalTech  
 Duke (11/99)  
 Rutgers U. (2/00)  
 University College London (12/00)  
 Houston - Optometry (2/01)  
 Brandeis (4/01)  
 Boston U (9/01)  
 Vanderbilt U/ (Nashville, TN, 4/02)  
 Wright-Patterson AFB (7/02)  
 Rockefeller U, NY (1/03)  
 Harvard Psych (3/03)  
 MIT-BCS (4/03)  
 Stanford (8/04)  
 Duke (3/05)  
 U. Illinois (3/05)  
 Northeastern U (9/05)  
 York U (Toronto) (1/06)  
 Harvard (2/06)  
 W. Conn. State (3/06)  
 Siemens (NJ) (3/06)  
 CalTech (1/07)  
 Harvard U (IIC) (2/07)  
 Berkeley, CA (4/07)  
 Oxford, UK (9/07)  
 UT Austin (10/07)  
 Analogic Corp, Peabody, MA (1/08)  
 U. Minn (4/08)  
 BWH (Radiology) (8/08)  
 Schepens Eye Res (MA) (9/08)  
 Columbia (1/09)  
 NYU (4/09)  
 Dalhousie U, Halifax, NS (9/09)  
 Boston U. (10/09)  
 Yale (3/10)  
 MGH Martinos (9/10)  
 Washington U, St Louis (11/10)

Northwestern, Evanston, IL (11/10) Harvard MBB (3/11)  
 Harvard Med, Nuc. Medicine (4/11) Indiana U (10/11)  
 Università degli Studi di Milano-Bicocca, Milan, Italy (10/11)  
 Harvard Decision Group (2/12) Northeastern U (3/12)  
 Kansas State U (3/12) U. Maryland (3/12)  
 Procter & Gamble, Cincinnati (5/12) Harvard Psych (6/12)  
 Pathology Dept, MGH (6/12) Brandeis (9/12)  
 Conn. College (9/12)

### Invited Conference Presentations

- 1993 talk Guided Search 2.0: The upgrade. Human Factors Society
- 1993 talk The effects of aging on normal visual function. ARVO Symposium on Cataract at the Academy of Ophthalmology Meeting,
- 1993 talk A new look at binocular single vision. Academy of Optometry
- 1994 talk Extending Guided Search: Why Guided Search needs a preattentive "item map". CW Eriksen Festschrift, U. Illinois, May 20-22
- 1995 talk Understanding visual search and visual attention. Invited Address, Eastern Psychological Association Annual Meeting, Boston, April 1
- 1995 talk Where is Guided Search going? Banff Annual Seminar in Cognitive Science (BASICS) Banff, Alberta, CA, May 1995
- 1996 talk Vision: preattentive, attentive and post-attentive. New Fellows Address American Psychological Association meeting - Toronto, Aug. 1996
- 1996 talk Post-attentive vision.  
International Congress of Psychology - Montreal, Aug. 1996
- 1997 2 talks Visual search: Preattentive processing and the guidance of visual attention. and Visual experience: Less than you think, more than you know. at Neuronal basis and psychological aspects of consciousness. - Istituti Italiano per gli Studi Filosofici, International School of Biocybernetics, Ischia, Italy, Oct, 1997
- 1998 talk HM as a model of vision: Vision as amnesia. - American Psychological Association, Mind, Brain, and Behavior Symp. Aug 14<sup>th</sup> San Francisco.

- 1998 talk How quickly they forget: A modest alternative to blinks and blindness. Abstracts of the Psychonomic Society (Dallas, Nov, '98) Abs. #507
- 1999 talk Paying attention to attention in the teaching of Psychology. - National Institute on the Teaching of Psychology (NITOP), St. Petersburg, Jan. 1999
- 1999 talk Vision, attention, and memory. 3rd annual Vision Research conference. Preattentive and Attentive Mechanisms in Vision (7-8 May): Ft. Lauderdale, FL.
- 1999 talk The Deployment of Covert Attention: Two Surprises. NATO RTO/SCI-12 Workshop on Search and Target Acquisition. (21-23 June): Utrecht, The Netherlands
- 2000 talk Post-attentive vision and the illusion of perception. Invited paper presented at the Toward a Science of Consciousness, Tuscon, AZ. (April 11, 2000)
- 2000 talk The unbinding problem. Invited paper presented at the annual meeting of the Psychonomic Society, New Orleans, LA. (Nov 18, 2000)
- 2001 workshop Change Blindness Workshop, Duke U, May 26, 2001
- 2001 talk From stimulus to perception: "Small is the gate and narrow the road", Invited Plenary speaker at the Fifth annual meeting of the Association for the Study of Consciousness. Duke U, May 28, 2001
- 2001 talk Levels of Perceptual Delusion: The problem of post-attentive vision, invited speaker at 'Levels of Perception' conference in honor of Ian Howard, York U., Toronto, Ontario June 19-23, 2001
- 2002 talk What are we searching for? Studies in Visual Attention. Presidential Address at Annual meeting of the Eastern Psychological Association, Boston, April 9, 2002
- 2002 talk What guides the development of attention in visual search? Old question – new answers. Invited Symposium Talk Meeting of the Psychonomic Society, Kansas City, MO(Nov, 2002).
- 2003 talk Modeling visual search: Guided search and its friends. Invited Keynote, Munich Symposium on Visual Search, Holzhausen am Ammersee, Bavaria, Germany (June, 2003).
- 2003 talk Speed limits on the top-down guidance of attention. Invited talk, International workshop on Visual Attention. San Miniato, Italy (June, 2003).



- 2004 talk Reconfiguring your visual system: How and how fast do you change your mind? Invited talk: Visual Cortex: A variety of viewpoints. Satellite meeting of the Australian Neuroscience Society, (Melbourne, Jan 27, 2004)
- 2004 talk A two-pathway architecture for visual attention (w/ Todd Horowitz): Invited Talk: Australian Neuroscience Society, (Melbourne, Jan 29, 2004)
- 2004 talk The role of selective attention in human vision: A two pathways account. Invited Talk: Eighth International Conference on Cognitive and Neural Systems, Boston University on May 19-22, 2004.
- 2004 talk What Are We Searching For? Seeking Guidance in the Study of Visual Attention. Invited Plenary Talk: Annual meeting of the American Psychological Association, Honolulu, July 28 – Aug 1, 2004
- 2005 talk Guided Search: Invited talk at Modeling Integrated Cognitive Systems (MICS) Saratoga Springs, NY, March 3-5, 2005
- 2005 talk How Might the Rules that Govern Visual Search Constrain the Design of Visual Displays? Invited talk - Society for Information Display May 22-27, 2005 Boston, Massachusetts USA
- 2006 talk Searching the Cytological Sample. Invited - Annual meeting of the UK National Association of Cytologists, York, UK April 22, 2006
- 2006 co-author Attentional time-sharing in multiple object tracking Todd S. Horowitz, Jeremy M. Wolfe, George A. Alvarez, & David E. Fencsik  
Invited Symposium talk – Vision Sciences Society, Sarasota, FL, May 5, 2006
- 2006 talk Changing your mind: Psychophysical measurement of the top-down and bottom-up contributions to the guidance of visual attention. Invited Symposium talk – Vision Sciences Society, Sarasota, FL, May 5, 2006
- 2006 talk Prevalence effects in visual search: If you don't find it often, you often don't find it. Invited talk – MACCS Visual Cognition Meeting, Macquarie U, Sydney, NSW, Australia, June 1-2, 2006
- 2006 talk Selective and non-selective pathways in visual search and scene perception. Invited talk – Bio-Inspired Scene Understanding Using a Network of Disparate Sensors, Office of Naval Research, Arlington, VA, , July 25-26, 2006
- 2007 talk Guidance of visual search by unlocalized scene properties Invited talk MIT Scene Understanding Seminar (SUNS07), MIT, Cambridge, MA, Feb, 1-2, 2007

- 2007 talk How do we see what we "see". Ultrasound/Women's Imaging Course, Westin Hotel, Boston, May 2, 2007
- 2007 keynote Capturing the user's attention: Insight from the study of human vision. UIST (ACM Symposium on User Interface Software and Technology) , Newport, RI, Oct. 9, 2007.
- 2008 talk Highly Efficient Search for Arbitrary Objects in Natural Scenes Invited talk MIT Scene Understanding Seminar (SUNS07), MIT, Cambridge, MA, Feb, 1, 2008
- 2008 talk The Puzzling Relationship of Attention and Awareness: The View from Étienne Bonnot de Condillac's Château, Invited talk at Vision, Attention and Emotion Symposium at the Italian Academy of Columbia U, NYC, March 25, 2008
- 2008 talk Hiding in plain sight: Visible information that you can't find. Visualization in the World symposium, Charlotte Visualization Center, U. North Carolina, Chapel Hill, April 24-25, 2008.
- 2008 keynote Modeling visual search in real scenes: What will it take? Firbourg/Munich Visual search symposium, Murten, Switزرland, July 16-19, 2008
- 2008 talk Classical and non-classical guidance of attention in visual search. International Congress of Psychology, Berlin, July 22-25, 2008
- 2008 talk The role of memory in visual search. APA annual meeting, Boston, Aug. 14-17, 2008
- 2008 talk Perceptual Learning, Motor Learning and Automaticity, Amsterdam, Dec. 8-12, 2009 (At the last minute, I was giving a talk, rather than just chair a session).
- 2009 talk Search in real scenes: The latest mysteries, the latest clues. Invited talk MIT Scene Understanding Seminar (SUNS09), MIT, Cambridge, MA, Jan 30, 2009
- 2009 talk The human in the loop. Invited talk Algorithm Detection for Security Applications. Northeastern U., Boston, MA April 23, 2009
- 2009 talk Perception: How we “see” things. Invited talk American Roentgen Ray Society 2009 Annual Meeting, Boston, MA, April 29, 2009
- 2009 talk Human in the loop: Invited talk: American Society of Neuroradiology meeting, Vancouver May 16-21, 2009

- 2009 talk If you don't find it often, you often don't find it: The role of target prevalence in visual search tasks. Invited talk: Harvard Medical School Department of Ophthalmology, 2009 Update on Ophthalmology, June 20, 2009
- 2009 talk Mammography in the blink of an eye. Last-minute invited talk (I replaced a "new investigator" speaker who couldn't attend the APA Annual Meeting, Toronto, ON, 8/8/09
- 2009 keynote When should I leave? Invited talk NGA Academic Research Program (NARP) Symposium, Washington, DC 9/29-30/09
- 2009 talk If I can see so much, why do I miss so much. Distinguished contribution award address. New England Psychological Association Annual meeting, Worcester, MA, 10/10/09
- 2009 keynote What are we searching for? Adventures in the airport, the hospital, and the lab. Invited talk: IEEE Applied Imagery Pattern Recognition Conference, Washington, DC 10/15-16/09
- 2009 faculty Pay Attention! Harvard Graduate School of Education faculty-industry leader research project entitled "Learning Innovations Laboratory" Oct 27-28, 2009, Cambridge, MA
- 2010 talk How might visual search and visual attention influence sports performance? Sports Vision 2010, Jan 24, 2010, Fenway Park, Boston, MA
- 2010 talks A series of three lectures given to the Graduate School consortium of Swiss Psychology departments (organized by Joe Krummenacher) April 9-10, 2010
- 2010 talk How can it be so easy to find arbitrary objects in natural scenes? Invited talk: Selection and control mechanisms in perception and action. Meeting at Hebrew University, Inst. for Advanced Studies, April 12-15, 2010, Jerusalem, Israel
- 2010 talk Who is looking at that image? The human factor, Invited talk: Algorithm Development for Security Applications (ADSA) Workshop 3: Application to Advanced Imaging Technology (Whole Body Imaging) April 27-28, 2010, Northeastern University
- 2010 plenary If I am so good at this, why do I miss so much? Invited plenary talk, International Society for Magnetic Resonance in Medicine, May 4, 2010, Stockholm, Sweden

- 2010 keynote Visual Search Gets Real: From the Lab to the Airport to the Radiology Suite. Invited Keynote Address, Assoc. for Psychological Science (APS), May 27, 2010, Boston, MA
- 2010 talk Visual Search: Telluride neuromorphic workshop, July 1-8, 2010, Telluride, CO
- 2010 3 talks on Vision & Attention, National Cancer Institute Basic and Biobehavioral Research Branch Expert Meeting: Sensory Sciences & Embodied Cognition August 4-5, 2010, Washington, DC
- 2011 talk The future of psychology. in "Presidential Perspectives on Psychology" Symposium, Eastern Psychological Association Annual Meeting, March 11, 2011, Boston
- 2011 talk "What's my motivation in this scene? Visual search when it really counts" 59th Nebraska Symposium on Motivation, U. Nebraska, Lincoln, NE, April 7-9, 2011
- 2011 talk The Salami at the Airport: Visual Search Gets Real" Saturday, Vision Sciences Society Public Lecture, May 7, 2011 Naples, Florida
- 2011 talk Dancing Chickens and iPods Stored in Honey: Why Visual Attention Research Matters. Keynote lecture for WestConn Research Day, Western Connecticut State University, May 13, 2011, Danbury, CT
- 2011 tutorial Visual Search. Tutorial lectures at The 3<sup>rd</sup> Beijing International Symposium on Computational Neuroscience. Medical School, Tsinghua University, Beijing, China, July 13, 2011
- 2011 keynote Don't pack your iPod in honey: Lessons from the study of visual search. Keynote address at Asian Conference on Visual Perception, Hong Kong, July 16, 2011
- 2011 talk If I can see so much, why do I miss so much? And why should I care? Invited talk at the Mind Matters conference. Procter and Gamble, Cincinnati, Ohio, October, 13, 2011
- 2011 talk Visual search for objects. Invited talk at the Rovereto Attention Workshop, Rovereto, Italy, October 28, 2011
- 2011 talk How might technology improve human detection performance? Algorithm Development for Security Applications (ADSA) Workshop 6: August 8, 2011, Northeastern University

2012 keynote The rules of guidance in visual search. Keynote address at 1<sup>st</sup> Indo-Japan Conference on Perception and Machine Intelligence. Kolkata, India Jan 20-21, 2012

2012 keynote Is that a salami in your suitcase? When visual search really matters. Keynote address at the 2012 Great Plains Students' Psychology Convention, NW Missouri State U, Maryville, Missouri

2012 keynote "There is a world elsewhere" Guided Search beyond the computer screen. Keynote address at Visual Search and Selective Attention (VSSA III), July 20-23, 2012 at Holzhausen/Ammersee, Germany.

2012 keynote Afloat on a sea of images: How do humans deal with New tools and practices for seeing and learning in medicine? Keynote address at Visualization Tools in Medical Education and Expertise (ViTiMEE) Oct. 22-23, Turku Finland.

### 3. Teaching Awards

1989 Baker Memorial Prize (Undergraduate Teaching: MIT)

### 4. Leadership Roles Related to Teaching

1980s: I created the Program in Psychology at MIT, an umbrella organization that brought together faculty from a number of departments to provide a semblance of an undergraduate education in Psychology.

2007-2008: Spearheaded a project in the Teaching for Learning Network (MIT/Cambridge, UK) entitled "Integrating Topics and Disciplinary Thinking from Brain and Cognitive Science into Concourse "

## **PART III: Bibliography**

**132 Original Reports, 2 in press, 1 textbook, 32 book chapters, 312 published abstracts**

### **Original Reports (in refereed publications):**

1. Kinchla, R.A., & Wolfe, J.M. The order of visual processing: "Top-down", "bottom-up", or "middle-out". *Perception and Psychophysics* 1979; 25: 225-231.

2. Wolfe, J.M., & Held, R. Eye torsion and visual tilt are mediated by different binocular processes. *Vision Research* 1979; 19: 917-920.

3. Wolfe, J.M., & Owens, D.A. Evidence for separable binocular processes differentially affected by artificial anisometropia. *American Journal of Optometry and Physiological Optics* 1979; 56: 279-284.
4. Wolfe, J.M. The computer paper illusion. *Perception* 1979; 8: 347-348.
5. Held, R., Gwiazda, J., Brill, S., Mohindra, I. & Wolfe, J.M. Infant visual acuity is underestimated because near threshold gratings are not preferentially fixated. *Vision Research* 1979; 19: 1377-1379.
6. Gwiazda, J., Wolfe, J.M., Brill, S., Mohindra, I., & Held, R. Quick assessment of preferential looking acuity in infants. *American Journal of Optometry and Physiological Optics* 1980; 57 :420-427.
7. Wolfe, J.M., & Held, R. Cyclopean stimulation can influence sensations of self-motion in normal and stereoblind subjects. *Perception and Psychophysics* 1980; 28: 139-142.
8. Wolfe, J.M., Held, R., & Bauer, J.A. A binocular contribution to the production of optokinetic nystagmus in normal and stereoblind subjects. *Vision Research* 1981; 21: 587-590.
9. Wolfe, J.M., & Owens, D.A. Is accommodation colorblind? Focusing isoluminant contours. *Perception* 1981; 10: 53-62.
10. Wolfe, J.M., & Held, R. A purely binocular mechanism in human vision. *Vision Research* 1981; 21: 1755-1759.
11. Wolfe, J.M., & Held, R. Binocular adaptation that cannot be measured monocularly. *Perception* 1982; 11: 287-295.
12. Wolfe, J.M., & Held, R. Gravity and the tilt aftereffect. *Vision Research* 1982; 22: 1075-1078.
13. Wolfe, J.M., Held, R., & Gwiazda, J. A reply to Nachmias. *American Journal of Optometry and Physiological Optics* 1982; 59: 848.
14. Wolfe, J.M. Hidden visual processes. *Scientific American* 1983; 248: 94-103.
15. Wolfe, J.M., & Held, R. Shared characteristics of stereopsis and the purely binocular process. *Vision Research* 1983; 23: 217-227.
16. Wolfe, J.M., Gwiazda, J., & Held, R. The meaning of non-monotonic psychometric functions in the assessment of infant preferential looking acuity. *Vision Research* 1983; 23: 917-920.

17. Wolfe, J.M. Influence of spatial frequency, luminance, and duration on binocular rivalry and abnormal fusion of briefly present, dichoptic stimuli. *Perception* 1983; 12: 447-456.
18. Wolfe, J.M. Afterimages, binocular rivalry, and the false fusion phenomenon. *Perception* 1983; 12: 439-445.
19. Wolfe, J.M. Reversing ocular dominance and suppression in a single flash. *Vision Research* 1984; 24: 471-478.
20. Wolfe, J.M. Global factors in the Hermann grid illusion. *Perception* 1984; 13: 33-40.
21. Wolfe, J.M. Short test flashes produce large tilt aftereffects. *Vision Research* 1984; 24: 1959-1964.
22. Owens, D.A., & Wolfe, J.M. Accommodation for flickering stimuli. *Ophthalmological Physiological Optics* 1985; 5: 291-296.
23. Wolfe, J.M., & O'Connell, K.M. Fatigue and structural change: Two consequences of visual pattern adaptation. *Investigative Ophthalmology and Visual Science* 1986; 27: 538-543.
24. Wolfe, J.M. Stereopsis and binocular rivalry. *Psychological Review* 1986; 93: 269-282.
25. Wolfe, J.M. Briefly presented stimuli can disrupt constant suppression and binocular rivalry suppression. *Perception* 1986; 15: 413-417.
26. Wolfe, J.M. Measurement of chromatic aberration of the human eye: A fast and simple method. *Clinical Vision Science* 1987; 1: 281-286.
27. Wolfe, J.M., & O'Connell, K.M. Adaptation of the resting state of accommodation: Dark and light field measures. *Investigative Ophthalmology and Visual Science* 1987; 28: 992-996.
28. Wolfe, J.M. The vernier aftereffect. *Perception* 1987; 16: 593-597.
29. Wolfe, J.M. Parallel ideas about stereopsis and binocular rivalry. A reply to Blake and O'Shea. *Psychological Review* 1988; 95: 155-158.
30. Wolfe, J.M. & Franzel, S.L. Binocularity and visual search. *Perception and Psychophysics* 1988; 44: 81-93.
31. Wolfe, J.M., Cave, K.R., & Franzel, S.L. Guided Search: An alternative to the Feature Integration Model for visual search. *Journal of Experimental Psychology: Human Perception and Performance* 1989; 15: 419-433.

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33. Wolfe, J.M., & Pokorny, C.W. Inhibitory Tagging in Visual Search: A failure to replicate. *Perception and Psychophysics* 1990; 48: 357-362.
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41. Wolfe, J.M., & Friedman-Hill, S.R. Visual search for oriented lines: The role of angular relations between targets and distractors. *Spatial Vision* 1992; 6(3): 199-208.
42. Wolfe, J.M. The parallel guidance of visual attention. *Current Directions in Psychological Science* 1992; 1(4): 125-128.
43. Wolfe, J.M. Talking to yourself about *What* is *Where*. What is the vocabulary of preattentive vision? Commentary on Jackendorf and Landau. *Behavioral and Brain Sciences* 1993; 16(2): 254-255.
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294. Wolfe, J. M., Birdwell, R. L., & Evans, K. K. (2011). If You Don't Find it Often, You Often Don't Find It: Disease Prevalence is a Source of Miss Errors in Screening Mammography. paper presented at the annual Radiological Society of North America meeting: Chicago, IL., Nov 30, 2011.

295. Sherman, A. M., Evans, K. K., & Wolfe, J. M. (2012). The gist of the organized is more precise than the gist of the random. *J. Vis.*, Poster given at the annual meeting of the Vision Sciences Society in Naples, FL.

296. Wolfe, J. M., & Danielson, J. R. (2012). Visual Foraging Behavior: When are the berries riper on the other side of the screen? . *J. Vis.*, Talk given at the annual meeting of the Vision Sciences Society in Naples, FL.

297. Vo, M. L., & Wolfe, J. M. (2012). Semantic and Syntactic Inconsistencies in Scenes Elicit Differential ERP Signatures. *J. Vis.*, talk given at the annual meeting of the Vision Sciences Society in Naples, FL.

298. Horowitz, T. S., Sherman, A. M., Kreindel, E., & Wolfe, J. M. (2012). When four, six, eight, or sixteen hearts beat as one: Effects of perceptual organization on search for temporal frequency outliers. *J. Vis.*, Poster given at the annual meeting of the Vision Sciences Society in Naples, FL.

299. Evans, K. K., & Wolfe, J. M. (2012). The Gist of the Abnormal: Above chance medical decision making in the blink of an eye. *J. Vis.*, Talk given at the annual meeting of the Vision Sciences Society in Naples, FL.
300. Drew, T., & Wolfe, J. M. (2012). Hybrid search in the temporal domain: Monitoring an RSVP stream for multiple targets held in memory. *J. Vis.*, Talk given at the annual meeting of the Vision Sciences Society in Naples, FL.
301. Cunningham, C. A., & Wolfe, J. M. (2012). Finding what is new in hybrid visual and memory search: a new search asymmetry. *J. Vis.*, Poster given at the annual meeting of the Vision Sciences Society in Naples, FL.
302. Evans, K. K., & Wolfe, J. M. (2012). Smothered by the scene: When context interferes with memory for objects. Paper presented at the 2012 European Conference on Visual Perception (ECPV).
303. Vo, M. L., & Wolfe, J. M. (2012). ERPs dissociate Semantic and Syntactic Processing in Scenes. Paper presented at the 2012 European Conference on Visual Perception (ECPV).
304. Drew, T., Sherman, A. M., & Wolfe, J. M. (2012). How does memory search interact with the attentional blink? Paper presented at the 2012 European Conference on Visual Perception (ECPV).
305. Suzuki, M., Wolfe, J. M., Horowitz, T. S., & Noguchi, Y. (2012). Masking of target with illusory color-orientation misbinding. Paper presented at the 31st Annual Meeting of the Japanese Psychonomic Society.
306. Cunningham, C. A., & Wolfe, J. M. (2012). Lions or tigers or bears: Oh my! Hybrid visual and memory search for categorical targets. Paper presented at OPAM (Minneapolis, MN, Nov 2012) see also *Visual Cognition*, 20(9), 1024-1027.
307. Cunningham, C. A., & Wolfe, J. M. (2012). *Extending "Hybrid" Visual X Memory Search To Very Large Memory Sets And To Category Search*. Paper presented at the Annual meeting of the Psychonomic Society.
308. Drew, T., Sherman, A. M., & Wolfe, J. M. (2012). *How does search through memory interact with the attentional blink?* Poster presented at the Annual meeting of the Psychonomic Society.
309. Evans, K. K., & Wolfe, J. M. (2012). *Can't remember the tree because of the forest: When context interferes with memory for objects*. Poster presented at the Annual meeting of the Psychonomic Society.
310. Vo, M. L., & Wolfe, J. M. (2012). *Searching for Invisible Objects in Visible Scenes*. Paper presented at the Annual meeting of the Psychonomic Society.
311. Wolfe, J. M., Hochberg, A., Schultz, K., & Young, G. S. (2012). *The perceptual consequences*

*of dose reduction in an aneurysm segmentation task.* Paper presented at the Radiological Society of North America Annual Meeting.

312. Sitek, A., Hochberg, A., Young, G. S., Schultz, K., & Wolfe, J. M. (2012). *Evaluation of the raw noise simulator for radiation dose-reduction studies in CT.* Poster presented at the Radiological Society of North America Annual Meeting.