



**WINNER, KAVLI Brain and Mind Innovative Research award**

**WINNER, DFJ Venture Challenge**

**WINNER, UCSD Entrepreneurship Competition**

**WINNER, CONNECT Most Innovative New Product**

**WINNER, MIT Technology Review, MIT-TR35 Top Young Innovator**

**WINNER, NEW YORK TIMES MAGAZINE'S 32 Innovations that Will Change Your Tomorrow**

**Fast Company's Top 10 Most Innovative Companies in Health Care**

**The Scientist Magazine's Scientist to Watch**

**Founder, Chairman & CEO  
NeuroVigil, Inc.**

Dr. Low made his first scientific discovery at Harvard Medical School – as a teenager. While inventing new brain monitoring techniques at the University of Chicago, he was referred to the Salk Institute by Francis Crick, Nobel Laureate of DNA fame, where he authored a 1 page PhD thesis on dynamic brain activity mapping unanimously approved by a committee of two past presidents of the Society for Neuroscience (SfN) and four members of the National Academy of Sciences, including his co-advisors, Drs. Terry Sejnowski and Fred Gage. The thesis work led to his creation of NeuroVigil, the neurotechnology company responsible for iBrainTM, a portable brain activity monitor, with first and second round valuations two and two-and-a-half times Google's and Facebook's combined, respectively, as well as to his writing of the Cambridge Declaration on Consciousness, the first formal document officially recognizing consciousness in non-humans – by demonstrating that features thought to be at best unique to the human brain were not necessary for features for which consciousness is thought to be necessary – the signing of which by neuroscientists was described as a “Copernican moment in the history of civilization” which has led to a worldwide debate and to the evolution of the treatment and rights of non-humans.

He was appointed to dual positions at the Stanford School of Medicine and the MIT Media Lab in his twenties. His research collaborators include some of the World's Top Pharma companies – the likes of Roche and Novartis – and his advisors include the late Stephen Hawking (at whose request NeuroVigil connected in 2013 a human to a computer non-invasively, on a single wireless channel, and enabled him to communicate with his mind, part of Dr. Low's five dozen patents), Nobel laureates Dr. Roger Guillemin and the late Dr. Sydney Brenner, Wolfram Research's Dr. Stephen Wolfram, IdeaLab's Dr. Howard Morgan, Qualcomm's Dr. Irwin Jacobs & Dr. Andrew Viterbi, SpaceX's and Tesla's Elon Musk, as well as Laurene Powell Jobs who is advising him personally. He created and chaired the first international Congress on Alzheimer's & Advanced Neurotechnologies and the Francis Crick Memorial Conference on Consciousness. He has advised the Obama White House, the US Congress, NASA (Chief Scientist for Human Space Program), the US Armed Forces (Chief of Naval Operations), and the Israeli, Canadian and Argentine governments on Neurotech. He is an advisor to the Jonas Salk Legacy Foundation and a board member of the MacArthur Foundation prize-winning Recipe For Change Foundation, which provides non-violent offenders cooking and art skills to maximize their chances of successfully reintegrating the work force.

Dr. Low's honors include the MIT TR-35 Top Young Innovator Award (worldwide), the DFJ Venture Challenge and the inaugural Jacobs-Rady Pioneer Award for Global Innovation & Entrepreneurship. His inventions and discoveries have been profiled in scientific and popular media including Science, PNAS, CNN, TIME, Newsweek, Forbes, the Economist, the Washington Post which lists NeuroVigil as one of the “Top 10 Most Innovative Companies in Health Care”, The Scientist which singled out Dr. Low as “A Scientist to Watch” and the New York Times which has recognized iBrain as “an innovation that will change your tomorrow.”

**Born:** August 16<sup>th</sup> 1979 in Vienna, Austria. **Citizenship:** Canadian. **Residency:** US (EB-1 Exceptional Ability/National Interest Green card)

The information herein may not be up-to-date

## NeuroVigil

Office of the Chairman &  
Chief Executive Officer  
Hillsborough, CA 94010, USA  
Assistant: [info@neurovigil.com](mailto:info@neurovigil.com)

Mail: NASA Research Park  
PO Box 111  
Moffett Field CA, 94035  
USA

## Education

**University of California,  
San Diego** La Jolla, CA, USA  
01-07: **Ph.D in Computational  
Neurobiology**  
Committee in charge: Charles  
F. Stevens (Chair), Terrence J.  
Sejnowski (advisor), Fred H.  
Gage (advisor), Sean P. A.  
Drummond, Larry R. Squire

**The University of Chicago**  
Chicago, IL, USA  
96-00: **Bachelors of Science  
in Pure Mathematics**

**Institut Le Rosey**  
Rolle & Gstaad, Switzerland  
91-96: **French Scientific  
Baccalaureate**,  
specialization in Mathematics

84-91: **Cours Hattemer**  
Paris, France

## Selected Honors

- **Scientist to Watch, *The  
Scientist Magazine*** (2013)

- **32 Innovations That Will  
Change Your Tomorrow,**  
*New York Times* (2012)

- **Jacobs-Rady Pioneer  
Award in Global Innovation  
& Entrepreneurship** (2011)

## NeuroVigil, Inc. - Founder, Chairman, President, Chief Executive Officer and Chief Scientific Officer

Silicon Valley, CA, USA

02/07 – Current: Created and implemented core technology, assembled team, secured IP rights and protected IP, negotiated contracts with pharmaceutical industry, incl. Roche & Novartis and terms with investors. NeuroVigil went to market in Q4 2009, in Pharma space, pre-funding and subsequently closed financings on May 1, 2011 and April 30, 2015. Advisors Include: Sonia Ancoli-Israel, Sydney Brenner (in memoriam), Michael Castro, Utkan Demirci, Gozde Durmus, Fred Gage, Kate Gaudry, Alexis & Robert Flint, Ronald Graham, Roger Guillemin, Stephen Hawking (in memoriam), Reena & Sam Horowitz, Irwin Jacobs, Gautier Martin-Regnier, Howard Morgan, Elon Musk, Terrence Sejnowski, Jerome Siegel, Donald Spencer, Jean-Paul Spire, Andrew Viterbi, Stephen Wolfram and Noam Ziv. <http://www.neurovigil.com/leadership/>

## Philip Low Foundation – Founder, Chairman, President

Silicon Valley, CA, USA

12/2015 – Current. The Philip Low Foundation's purpose is to detect, express and preserve consciousness throughout the Universe and to engage in other scientific, educational and charitable activities. Trustees include: Sonia Ancoli-Israel, Kindra Crick & Kate Gaudry. <https://philiplow.foundation/leadership/>

## Massachusetts Institute of Technology (M.I.T.)

Cambridge, MA, USA 04/09-12/19: Research Affiliate

<http://syntheticneurobiology.org/people/display/130/26>

## Stanford University School of Medicine

Stanford, CA, USA. 02/09-2012: Adjunct Consulting Assistant Professor

## Salk Institute for Biological Studies

La Jolla, CA, USA

01/10-05/13: Research Collaborator; 11/07-1/09: Post-doctoral Fellow  
Non-invasive recording; 09/01-10/07 Graduate Student & Sloan-Swartz Fellow  
in Computational Neurobiology in Sejnowski & Gage labs: Invented SPEARS,  
the first single-channel unsupervised human sleep EEG feature extraction  
algorithm; Proved that Neocortex was not necessary for mammalian-like sleep.  
<http://cnl.salk.edu/People/Person/?Person=6003>

## The University of Chicago

Chicago, IL, USA

06/00 - 08/01, 06/02-08/02: Research Assistant in Margoliash Laboratory  
Invented new epidural EEG brain implant technique and equipment for zebra  
finch sleep monitoring. Technique now widely used in the field.

## Harvard Medical School / Brigham and Women's Hospital & Children's Hospital

Boston, MA, USA

06-09/99: Intern, Center for Uterine Fibroids (Nowak)

Verified in 9 weeks that Compound H, a Collagen Type I Inhibitor, could halt the  
spread of fibroid tumors, which affect over half of post-menopausal women.

- **Most Innovative Companies in Health Care, *Fast Company*** (2011)
- **World Technology Awards** (2011), Semi-finalist
- **Most Innovative New Product Award in Life Sciences, Research & Diagnostics, CONNECT** (2010)
- **Top Young Innovator, *Worldwide*, MIT TR-35** (2010)
- **Qualcomm Q-Prize**, (2009), Finalist
- **US Gov "Extraordinary Ability", O-1 (09&12), EB-1(12)**
- **DFJ 250K Venture Challenge** (2008), Winner
- **UCSD Entrepreneurship Competition** (2008), Winner
- **Kavli Brain and Mind Foundation Award for Innovative Research** (2007)
- **Ray Thomas Edwards Foundation Award** (2006)
- **Sloan-Swartz Fellowship** (2002-2007)
- **National Science Foundation IGERT Fellowship** (2001)
- **Merck Fellowship** (2001)

## Teaching & Mentoring

MIT: NeuroVentures, Guest Lecturer

**Stanford School of Medicine:**  
Sleep Grand Rounds

**UCSD:** Graduate Advanced Biology of Sleep Oscillations

**SALK:** Sloan-Swartz Talks; non-invasive rodent EEG preparation: M. Bonjean, R. Landreth, L. Wylie; Sleep Analysis: H. Mien, I. Spokoiny, L. Schuetz, H. Schuetz

## Selected Publications

"The Cambridge Declaration on Consciousness in Human and Non-Human Animals", **PS Low**, eds (J. Paanksep, D. Edelman, D. Reiss, B. Van Swinderen, PS Low, C. Koch). The Francis Crick Memorial Conference, Cambridge, UK, 2012. <http://fcmconference.org/img/CambridgeDeclarationOnConsciousness.pdf>  
 "Towards Establishing Neural Correlates of Intended Movements and Speech" **PS Low** & SW Hawking, The Francis Crick Memorial Conference, Cambridge, UK, 2012. <http://fcmconference.org/#program>

"Ask not what the brain can do for sleep - ask what sleep can do for the brain" **P Low** *Frontiers in Neuroscience* December 2009, Volume 3 Issue 3  
<http://www.neurovigil.com/assets/press/papers/FrontiersInNeuroscience-Dec2009-SleepAndDreamsTheme-PhilipLow.pdf>

"The Antifibrotic Drug Halofuginone Inhibits Proliferation and Collagen Production by Human Leiomyoma and Myometrial Smooth Muscle Cells." MM Grudzien, **PS Low**, PC Manning, M Arredondo, RJ Belton, Jr & RA Nowak. *Fertility & Sterility* 2009 [http://www.fertstert.org/article/S0015-0282\(08\)04590-1/fulltext](http://www.fertstert.org/article/S0015-0282(08)04590-1/fulltext)

"A non-Invasive EEG in Animals." M Bonjean\*\*, **P Low\***, L Wylie, B Nielsen, TJ Sejnowski, FH Gage. \*1<sup>st</sup> author, \*\*presenter *Proceedings of the Society for Neuroscience* (2008)  
<http://papers.cnl.salk.edu/PDFs/Noninvasive%20EEG%20in%20Animals%202008-4128.pdf>

"REM Revealed" PS Low, SC Barton, R Landreth, TJ Sejnowski.  
*Proceedings of the Society for Neuroscience* (2008)  
<http://papers.cnl.salk.edu/PDFs/R.E.M.%20Revealed%202008-4130.pdf>

"Mammalian-like Features of Sleep Structure in Zebra Finches"  
**PS Low**, SS Shank, TJ Sejnowski & D Margoliash. *Proceedings of the National Academy of Sciences USA* (PNAS Track II) 2008 Jul 1;105(26):9081-6. Epub 2008 Jun 25. <http://www.pnas.org/content/105/26/9081>

"A New Way To Look At Sleep" **PS Low, Ph.D thesis**, p 1, United States Library of Congress, 2007. <http://escholarship.org/uc/item/6250v3wk#page-1>

"REM revisited" **PS Low** & TJ Sejnowski.  
*Proceedings of the Society for Neuroscience* (2007)

"Fine Structure of Human Sleep" **PS Low** & TJ Sejnowski.  
*Proceedings of the Society for Neuroscience* (2006)  
<https://papers.cnl.salk.edu/PDFs/Fine%20Structure%20of%20Human%20Sleep%202006-3936.pdf>

"A New Way To Look At Sleep" **PS Low**, FH Gage & TJ Sejnowski.  
*Proceedings of the Society for Neuroscience* (2005)  
<https://papers.cnl.salk.edu/PDFs/A%20New%20Way%20to%20Look%20at%20Sleep%20005-2963.pdf>

"Dynamic Spectral Scoring: A New Way to Look at Sleep",  
**P Low**, FH Gage, & TJ Sejnowski. *WiR Workshop on Data-driven Modeling and Computation in Neuroscience*, Hohenwurt Forum, Germany, May 2005.

"The anti-fibrotic drug halofuginone inhibits proliferation and collagen production by leiomyoma smooth muscle cells." RA Nowak, **P Low**, JE Wubben, RJ Belton, Jr. *2nd NIH Int. Congress on Advances in Uterine Leiomyoma Research*. 2005.

"An unbiased automated approach to single channel sleep scoring"  
**P Low**, FH Gage & TJ Sejnowski.  
*Proceedings of the Society for Neuroscience* (2004)

**University of Chicago:** avian EEG preparation: S. Shank

**NeuroVigil:** Data Acquisition Devices: M. Chi, K. Liu, P. Ng, J. Jou, S. Joshi, K. Kuspa, I. Yang, D. Howe. Analysis: S. Barton, R. Landreth, J. McInerney, M. Zaslavsky, E. Aponte, V. Murzin, H. Imura, G. Rotival, R. Sharma, C. Duff, G. Szep, K. Cooney, A. Kashyap, F. Bao, B. James, I. Skurikhin, B. Hernandez, C. Lai, Z. Jian, V. Parthasarathy, S. Xie, D. Lu, R. Hundia, B. Wang. Business: H. Prokhorenko, D. Furman, G. Landreth, B. Chainey.

## **Selected Editorial, Domestic & International Community Service**

Frontiers in Sleep and Chronobiology, Journal of Neuroscience, Nature, Nature Neuroscience, Neuron, NeuroReport, PLoS, Science, Science Translational Medicine

- **US-Israel Science & Technology Foundation (USISTF)** (2012-2014): Member of the Advisory Council

- **The White House**, Washington, DC, USA, (2012-current): advising OSTP on Neuroscience

- **NeuroVigil Stephen Hawking Project Leader:** extraction and analysis of Prof. Hawking's brain patterns (2011-current)

- **Francis Crick Memorial Conference on Consciousness, Cambridge, UK** (2012): Chairman

- **The San Diego Enterprise Petition** (2012): Leader

"A Pattern of Mammalian-like Features in Zebra Finch Sleep"  
**P Low**, S Shank & D Margoliash.  
*Proceedings of the Society for Neuroscience (2003)*

"The Organization of Sleep States in Zebra Finches"  
**P Low**, S Shank & D Margoliash.  
*Computational Neuroscience 2003 Proceedings.*

## **Selected Patents**

**"Methods Of Identifying Sleep And Waking Patterns And Uses" filed 11/16/09, Inventor: P. Low**

Pending / published in including: BR, CA, IN, MY, US.  
Issued in: IL (212852), NZ(622327)

**"Automated Detection Of Sleep And Waking States" filed 05/09/06, Inventor: P. Low**

Issued in: CA (2,607,049), CH (06759507.4), CN(200680019721.0), DE(06759507.4), EP(06759507.4), ES (06759507.4), FR(06759507.4), GB(06759507.4), HK(08108892.4), IE(06759507.4), IL(187239), IN(293499), IT(06759507.4), JP(2014-105593), KR(10-2007-7028646), US(11/431,425).

**"Head Harness & Wireless EEG Monitoring System" filed 10/27/2010, Inventors: P. Low et al.**

Pending / published in including: BR, EP, IN, MY, US  
Issued in: AU(2010315468), CN (201080056226.3), IL(219434 & 242206), JP(2012-537014), NZ(600089 and 621036).

**"Correlating Brain Signal to Intentional And Unintentional Changes In Brain State" filed 01/24/13, Inventor: P. Low**

Pending / published in including: CA, EP, IL, JP, KR.  
Issued in: CN (104135920), HK (1201706), US(9,364,163 and 9,820,663).

**"Localized Collection Of Biological Signals, Cursor Control In Speech-Assistance Interface Based On Biological Electrical Signals And Arousal Detection Based On Biological Electrical Signals" filed 10/14/2014, Inventor: P. Low**

Pending / published in including: AU, CN, EP, HK, IN, JP, NZ, US

Several other Patent Applications are currently being processed regarding novel ways to record, identify and use brain activity.

## **Science, Biotechnology, Business & Bioethics Lectures**

162. **Joint Chambers of Congress, Keynote.** Buenos Aires, AR, May 2019
161. **Feria Ecobelleza, Keynote address,** Santiago, Chile, May 2019.
160. Invited lecture, **Universidad Catolica,** Santiago, Chile, May 2019.
159. **"One Health" National Convention, Keynote.** Buenos Aires, AR, Nov 18.
158. Saïd Business School, **University of Oxford, Keynote,** UK, July 2018.
157. **MIT Enterprise Forum, Keynote address.** San Diego, October, 2017.
156. **EUROTOX, Keynote address,** Bratislava, Slovakia. September 2017.
155. **The Science of Consciousness Conference, Plenary lecture.** June 2017.
154. **NASA JOHNSON SPACE CENTER.** June 2017.
153. Invited lecture, **Barrow Neurological Institute,** Phoenix, AZ, April 2017.
152. **Montreal Neurological Institute, Canada.** November 2016.
151. **University of Toronto, Canada.** November 2016.
150. **Wyoming Tech Summit, Neurotech Keynote,** Jacksonhole, WY, Sept 16.
149. **NEUROTECH NYC Conference, Keynote,** New York, NY, USA, June 2016.

- **1st Intl. Congress on Alzheimer's Disease and Advanced Neurotechnologies, Monaco (2009):** President

## Activities

**American Association for the Advancement of Science(AAAS):** Member, 2004-current.

### AMPA

(Association Monegasque Pour la maladie d' Alzheimer): Founding Member, Director of Scientific Advisory Board, 2009-current.

### Aspen Brain Forum

Scientific Advisory Board Member, 2009-current

### Computational

**Neuroscience (CNS):** Director and board member, Travel Grant & Future Meeting Sites committees.2003-2005

**Fishman Fund:** Board member, 2012-current

### Geoffrey Been Foundation Alzheimer Challenge:

Advisor, 2012-current

**Huffington Post:** Contributor, 2016-current

### 1<sup>st</sup> International Congress on Alzheimer's

**Disease and Advanced Neurotechnologies in Monaco (2010):** Chairman of the Scientific Board, 2009-10.

### Legacy of Jonas Salk

**Foundation:** Board of Advisors, 2012-current

### Mathematical Association of America (MAA):

Member, 1997-current.

148. **San Francisco AI Conference, Keynote**, San Francisco, CA, USA, 05/16.
147. **10X Medical Device Conference, Keynote**, San Diego, CA, USA, 05/16.
146. **NEUROTECH SF 2016**, San Francisco, CA, USA. April 2016.
145. **DIALOG**, Los Angeles, CA, USA. February 2016.
144. **FiRe**, Park City, Utah, USA. October 2015.
143. **VEGFEST, Keynote Speaker**, Recife, Brazil. September 2015.
142. **Waterloo Innovation Summit**, Waterloo, Canada. September 2015.
141. **UNICAMP Consciousness Symp., Keynote**, Campinas, Brazil. July 2015.
140. **UNICAMP Winter School, Keynote Speaker**, Campinas, Brazil. July 2015.
139. **Intl. Altern. to Animal Exp., Keynote Speaker**, Lisbon, Portugal. May 15
138. **UCSD Jacobs School of Engineering, Keynote**, La Jolla, CA, USA. Apr 15
137. **FiRe Seminar Series & Public Lecture**, Park City, Utah, USA. May 2015.
136. **Med Des & Manufacturing, Keynote Speaker**, Anaheim, CA, USA. 02/15
135. **Med device and Diagnostics Forum**, San Diego, CA, USA. February 2015.
134. **American Sr Housing Association, Keynote**, Dana Point, CA, USA. 01/15
133. **Harvard Animal Consciousness Symposium**, Cambridge, USA. Nov. 14.
132. **FutureMed**, San Diego, CA, USA. November 2014.
131. **METal**, Santa Monica, January 2012.
130. **Scripps Viterbi Clinic**, La Jolla, CA, USA. September 2014.
129. **Illrd Brazilian Congress on Bioethics**, Curitiba, Brazil. August 2014.
128. **FiRe**, Laguna Beach, CA, USA. May 2014.
127. **NASA Ames Research Center**, Moffett Field, CA, USA. April 2014.
126. **FED**, San Diego, CA, USA. March 2014.
125. **Weizmann Institute**, Rehovot, Israel. October 2013.
124. **Technion**, Haifa, Israel. October 2013.
123. **BrainTech Israel 2013, Keynote Speaker**, Tel Aviv, Israel. October 2013.
122. **MIT NeuroVentures**, Cambridge, MA, USA. October 2013.
121. **Annual Aspen Brain Forum, Keynote Panel**, Aspen, CO, USA, Sept 2013.
120. **CalBio**, San Diego, CA, USA. June 2013.
119. **UCSD**, Grad. Class on Biomed Integ. Circuits, San Diego, CA, USA 06/13.
118. **Singularity University Exponential Leadership Summit**, LA, USA, 06/13.
117. **NOVARTIS Pharmaceuticals**, Basel, Switzerland. December 2012.
116. **University of Basel**, Basel, Switzerland. December 2012.
115. **Columbia University**, New York, NY, USA. December 2012.
114. **University of Arizona**, Tucson, AZ, USA. November 2012.
113. **UCSD Entrepreneur Challenge**, La Jolla, CA, USA, October 2012.
112. **NASA AMES**, Singularity University, Mountain View, CA, USA. July 2012.
111. **Francis Crick Memorial Conference**, Cambridge, UK. July 2012.
110. **Johns Hopkins**, Baltimore, MA, USA. June 2012.
109. **UPenn**, Philadelphia, PA, USA. June 2012.
108. **Drexel University**, Philadelphia, PA, USA. June 2012.
107. **IN-Q-TEL**, VA, USA. June 2012.
106. **AMGEN**, Thousand Oaks, CA, USA. April 2012.
105. **FutureMed**, NASA Ames, Mountain View, CA, USA. February 2012.
104. **METal**, Santa Monica, January 2012.
103. **Distinguished Biotechnology Speaker Series, CALTECH**, Pasadena, CA, USA. December 2011.
102. **Stanford Graduate School of Business**, Palo Alto, CA, USA. Dec. 2011
101. **CNS SUMMIT**, Boca Raton, FLA, USA. November 2011.
100. **Mini-symposium on New Dimensions in Brain-Machine Interfaces, UCSD**, La Jolla, CA, USA. November 2011.
99. **Neurotech Leaders Forum**, San Francisco, CA, USA. October 2011.
98. **CSHL President's Council Meeting**, Cold Spring Harbor, NY, October 2011.
97. **SONY North America**, San Jose, CA, USA. August 2011.
96. **Naval Health Research Center**, San Diego, CA, USA, August 2011.
95. **NASA AMES**, Singularity University, Mountain View, CA, USA. August 2011.
94. **The Scripps Research Institute**, La Jolla, CA, USA. July 2011.

**New York Academy of Sciences (NYAS):** Member, 2010-2011

**Recipe for Change:** Board member, 2015-current.

**Society for Neuroscience (SfN):** Member, 2001-current

**The Science Network (TSN):** Special Projects Advisor, 2003-current.

**The University of Chicago (college):** Chess Club Co-President, 1999-2001; French Club President, 2000-2001.

**Singularity University:** Faculty and guest speaker, 2010-2012

**UCSD / SALK (grad school):** Neuroscience Journal Club organizer, 01; Computational Neurobiology Journal Club member, 01-current; Synaptic Physiology Journal Club member; Computational Neurobiology Lounge founder, 01; Sloan-Swartz ChalkTalks organizer, 02. Society of Research Fellows, 02-07

**UCSD Innovation Advisory Board (2012):** Member

**X-Prize Foundation:** Life Sciences Advisor, 2010-current.

**TEDMED, San Diego, CA, USA.** October 2009.

**Institut Le Rosey (high school):** Chess Club founder and president 91-96; Debate Club cofounder and co-president 94-96; Cultural Academy Vice-President, 95-96; Students' UN member, 93-96; Ski and Tennis teams member, 91-96.

93. **Bristol-Myers Squibb**, Wailingford, CT, USA, July 2011.
92. **GlaxoSmithKline** World Headquarters, London, UK, July 2011.
91. **ResMed**, San Diego, CA, USA, June 2011.
90. **NASA AMES**, FutureMed, Mountain View, CA, USA. May 2011.
89. **Johnson & Johnson PRD**, La Jolla, CA, USA, May 2011.
88. **UCSD**, Center for Wireless Communications, La Jolla, CA, USA, April 2011.
87. **Riford Center**, La Jolla, CA, April 2011
86. **Georgia Institute of Technology**, Atlanta, GA, USA, April 2011.
85. **Intl. Society CNS Drug Development**, Las Vegas, NV, USA. March 11.
84. **UCSD E. Challenge**, Keynote, San Diego, CA, USA, January 2011.
83. **NOVARTIS** Pharmaceuticals, Basel, Switzerland. December 2010.
82. **Hoffmann - La ROCHE AG**, Basel, Switzerland. December 2010.
81. **ResMed**, Bella Vista, NSW, Australia. December 2010.
- 79-80. **Biomarker Discovery Conf., 2 keynotes**, Shoal Bay, Australia, Dec. 10
78. **Wireless Health Roundtable**, SDDT, San Diego, CA, November, 2010.
77. **BIOMEDevice, Keynote**, San Jose, CA, USA. November 2010.
76. **Johnson & Johnson**, San Diego, CA, USA. November 2010.
75. **Johnson & Johnson**, Raritan, NJ, USA. October 2010.
74. **Montgomery Healthcare Conference**, Menlo Park, CA, USA. October 2010.
73. **Building Better Brains**, Aspen, CA, USA. September 2010.
72. **EmTech Conference**, MIT, Cambridge, MA, USA, September 2010.
71. **National Heart Lung and Blood Institute, NIH**, Bethesda, MA, USA. July 2010.
70. **FCC-FDA**, Washington, DC, USA, July 2010.
69. Invited Talk, **NASA AMES**, Moffett Field, CA, USA. July 2010.
68. **French Consulate / West Wireless Institute**, La Jolla, CA, USA. June 2010.
67. **X-Prize Visioneering Workshop**, San Francisco, CA, USA May 2010.
66. **UCSD**, Cognitive Neuroscience, San Diego. May 2010.
65. **X-Prize Visioneering UCSD Entrepreneurship Lecture**, San Diego. 4/10
64. **Frontiers in Science and Technology**, San Diego, USA, March 2010.
63. **X-Prize Visioneering Workshop**, Marina de Rey, CA, USA March 2010.
62. **1<sup>st</sup> International Congress on Alzheimer's Disease & Advanced 61. Neurotechnologies**, Monte-Carlo, Monaco. February 2010.
61. **NOVARTIS** Pharmaceuticals, Basel, Switzerland. February 2010.
60. **Hoffmann - La ROCHE AG**, Basel, Switzerland. January & February 2010.
59. **MIT NeuroVentures**, Cambridge, MA, USA. November 2009.
58. **BILPIL**, San Diego, CA, USA. October 2009.
57. **TEDMED**, San Diego, CA, USA. October 2009.
56. **QUALCOMM Q-Prize**, Sunnyvale, CA, USA. September 2009
55. **Hoffmann - La ROCHE USA**, Nutley, NJ, USA. May 2009.
54. **Palais de l' Elysee (French Presidential Palace)**, Paris, France. May 2009
53. **Wireless Life Sciences Alliance**, San Diego, CA, USA. May 2009.
52. Invited Talk, **Scripps Green Hospital**, La Jolla, CA, USA. April 2009.
51. **Johnson & Johnson**, Skillman, NJ, USA. March 2009.
50. Inv. Talk, Sleep Grand Rounds, **Stanford University**, Palo Alto, CA, USA. 2/09
49. SCANS lecture, **UCSD**, La Jolla, CA, USA. January 2009.
48. **Hoffmann - La ROCHE**, Basel, Switzerland. January 2009.
47. **Hoffmann - La ROCHE**, Basel, Switzerland. December 2008.
46. **Society for Neuroscience**, Washington DC, USA. November 2008.
45. **QUALCOMM**, San Diego, CA, USA. October 2008.
44. **MIT NeuroVentures**, Cambridge, MA, USA. September 2008.
43. **MIT Media Lab** Cambridge, MA, USA. September 2008.
42. **MGH, Harvard Medical School**, Boston, MA USA. September 2008.
41. **Johnson & Johnson**, Skillman, NJ, USA. September 2008.
40. **NOVARTIS** Pharmaceuticals, Basel, Switzerland. August 2008.
39. **QUALCOMM**, San Diego, CA, USA. August 2008.
38. **Aspen Consciousness Research Retreat**, Aspen, CO, USA. July 2008.
37. **Keynote Address, IN3 Medical Summit**, San Francisco, CA. June 2008.

## Television / Books / Documentaries

“Lo que el día se llevó”, **La Nación (Argentina)**, November 2018

“Animals at Work”, **BBC (UK) World Service**, July 2016

“Turning Accidents into Opportunities”, **StartupHealthNow**, April 2016

“Stephen Hawking and Non-Human Consciousness”, **RawScience**, December 2013

“Elon Musk on Mars, Philip Low on the Brain”, **RawScience**, December 2013

“Through the Wormhole with Morgan Freeman”, **Discovery Channel** July 2013

“Entrepreneur pushes for incentives to keep startups in San Diego”, **Fox5**, July 2012

“Revolutionary Device May Read Minds”, **Fox5**, June 2012

“NewsTalk 910”, **KKSF**, June 2012

“The Newshour”, **BBC**, June 2012

“iBrain Device May Read Minds”, **NBC7**, April 2012

“Local Company Touts Mobile Brain Scanner”, **ABC10**, April 2012

“Brain Sensor Technology”, **The Doctor’s Channel**, April 2012

“Philip Low at FutureMed”, **The Doctor’s Channel**, January 2012

“Meet the iBrain”, **NBC Universal**, November 2010

36. **UCSD Entrepreneur Challenge Final**, San Diego, CA, USA. May 2008.
35. **Fourth Annual DFJ Venture Challenge**, Menlo Park, CA, USA. May 2008.
34. **Kavli Brain & Mind Symposium**, Salk, San Diego, CA, USA. May 2008.
33. **UCSD Rady School of Management**, San Diego, CA. April 2008.
32. **McGovern Institute, MIT**, Cambridge, MA, USA. April 2008.
31. **CALTECH**, Pasadena, CA, USA. January 2008.
30. **Hoffmann - La ROCHE AG**, Basel, Switzerland. December 2007.
29. **NOVARTIS Pharmaceuticals**, Basel, Switzerland. December 2007.
28. Invited Talk, **Max-Planck-Institut für Psychiatrie**, Munich, Germany. Dec 07.
27. **Wellcome Trust Centre for Human Genetics, University of Oxford**,
26. **Wellcome Centre, University of Oxford**, United Kingdom. December 2007.
25. **Society for Neuroscience**, San Diego, CA, USA. November 2007.
24. Thesis Defense: “**A New Way To Look At Sleep: Separation & Convergence**”. 23. **Salk Institute**, La Jolla, CA, USA. October 2007.
22. Invited Talk, **Scripps Clinic Sleep Center**, La Jolla, CA, USA. October 2007.
21. **Almaden Research Center, IBM**, San Jose, CA, USA. September 2007.
20. **Aspen Consciousness Research Retreat**, Aspen, CO, USA. August 2007.
19. **UCSD Entrepreneur Challenge Final**, San Diego, CA, USA. June 2007.
18. **Society for Neuroscience**, Atlanta, GA, USA. October 2006.
17. **Sloan-Swartz conference, Columbia**, New York, NY, USA July 2006.
16. Invited Talk, **Keck Center for Integrative Neuroscience, UCSF**, San Francisco, CA, USA. June 2006.
15. Invited Talk, Sleep Grand Rounds, **Stanford**, Palo Alto, CA, USA. June 2006.
14. Invited Talk, **Redwood Center for Theoretical Neuroscience, UC Berkeley**, Berkeley, CA, USA. June 2006.
13. **UCSD Rady School of Management**, San Diego, CA, USA. April 2006.
12. Sleep & Chronobiology, **UCSD**, San Diego, CA, USA. April 2006.
11. **Swartz Ctr. for Computational Neuroscience**, San Diego, CA, USA. 11/05.
10. **Society for Neuroscience**, Washington, DC, USA. November 2005.
9. **Sloan-Swartz Annual Symposium, CALTECH**, Pasadena, CA, USA. 07/05.
8. Invited Talk, **Max-Planck-Institut für Psychiatrie**, Munich, Germany. 05/05.
7. Invited by Nobel Laureate Sakmann to **Hohenwart Forum**, Germany. May 05.
6. **Society of Research Fellows, Salk Institute**, San Diego, CA, USA. Oct. 04.
5. **Merck Symposium**, San Diego, CA, USA. June 2004.
4. **Institute for Nonlinear Dynamics**, San Diego, CA, USA. May 2004.
3. **Society for Neuroscience**, New Orleans, LA, USA. October 2003.
2. Neurophysics Laboratory, **UCSD**, San Diego, CA, USA. February 2003.
1. Sleep & Chronobiology, **UCSD**, San Diego, CA, USA. February 2003.

## Public Press (sample)

Press coverage does not necessarily reflect the views of Dr. Low, NeuroVigil or those of its affiliates.

- “Who defends the animals?”, **El País** (Spain), March 2019
- “Are animals aware of their suffering?”, **El País** (Spain & Brazil), January 2019
- “Argentina has to ask itself if it wants to be part of the past and continue to test animals or advance to the future”, **Infobae** (Argentina), November 2018
- “The neuroscientist who showed that animals have emotions challenges the Pope”, **Clarín** (AR), Nov 18
- “Will Brains soon be Hacked?”, **Focus Magazine** (Germany), August 2018
- “What happens when Social Good Inspires Entrepreneurism”, **Forbes**, November 2017
- “Misfit monkeys and the mysteries of consciousness”, **Financial Times** (UK), July 2016
- “A Fitbit for Your Brain is around the corner”, **Newsweek**, April 2016
- “No Neurozone for Trump”, **HuffingtonPost**, April 2016
- “18 things Elon Musk has invested in”, **Business Insider Australia**, September 2015
- “NeuroVigil closes second financing round”, **Thomson Reuters’ peHUB**, May 2015
- “More than 20,000 elderly brains to be monitored via startup’s device”, **FierceMedDev**, Feb. 15
- “Neurotech Goes Global: Tens of Thousands of Brains Coming Online”, **MedGadget**, Feb. 15
- “Exponential Medicine Day 3: Scientific Discovery and Startup Innovation”, **MedGadget**, Nov 14
- “Doctor helping homeless blames La Jolla Music Society for eviction”, **10News**, Nov. 2014.
- “NeuroVigil’s iBrain Technology to Help Research Psychiatric Drugs, Assist in Understanding Neurological Disease”, **MedGadget**, August 2014.
- “NeuroVigil announces New Brain Research Initiatives”, **MarketWatch**, August 2014
- “Tratamos os animais de forma primitiva”, **INFO Exame**, August 2014

**1st Int. Congress on Alzheimer's Disease and Advanced Neurotech., Monaco.** AMPA-UMVM, February 2010.

**"Experimental Man: What One Man's Body Reveals about His Future, Your Health, and Our Toxic World"** by David Ewing Duncan, John Wiley & Sons. March 2009.

**"Future of the Human Mind"**, Mind Science Foundation, Given Institute. Aspen, CO, USA. July 2008.

**"Waking Up To Sleep"**, The Science Network, The Salk Institute, San Diego, CA, USA. February 2007.

## Miscellaneous

Fluent in French, English and German.

Working knowledge of Italian, Russian, various computer programming languages (self-taught) and neurosurgical techniques.

"Zoo Animals and Their Discontents", **The New York Times**, July 2014  
"La Jolla research project hopes to open doors for homeless military veterans", **10News**, Jun.14  
"Tenants in La Jolla shopping plaza: evictions will wipe out life savings", **10News**, May 2014  
"New speaker series to feature top Jewish minds", **San Diego Jewish World**, March 2014  
"Local neuroscientist offers technology to family of 13-year-old girl on life support", **10News**, Dec. 2013  
"Philip Low on Business Rockstars", **KFWB News Talk 980**, May 2013  
"iBrain allows ALS sufferers to communicate using their thoughts" **10News**, May 2013.  
"Scientist to Watch, Philip Low: Sleep Analyzer", **The Scientist**, January 2013  
"Self-Awareness with a Simple Brain", **Scientific American**, December 2012  
"How EEG Devices Will Read Your Brain Waves And Change Your World", **Huffington Post**, Nov 2012.  
"Philip Low...", iodonna, **Corriere della Sera**, October 2012.  
"Animals are conscious and should be treated as such", **New Scientist**, September 2012  
"Octopuses Gain Consciousness (According to Scientists' Declaration)", **Scientific American**, Aug 2012  
"Non-Human Consciousness Exists Say Experts. Now What?", **Forbes**, Jul 2012  
"It is not possible to say we did not know", says Philip Low", **Veja**, July 2012  
"Almost Human", **Veja**, July 2012  
"Stephen Hawking trials device that reads his mind", **New Scientist**, July 2012  
"Reading Stephen Hawking's Mind to Keep His Voice Alive", **TIME Magazine**, July 2012  
"To the Conquest of the Mind", **Veja** (cover story), July 2012  
"Scientists may have way to communicate with paralyzed", **USA Today**, June 2012  
"How researchers hacked into Stephen Hawking's brain", **MSNBC**, June 2012  
"32 Innovations That Will Change Your Tomorrow", **The New York Times**, June 2012  
"Device may be able to make Stephen Hawking talk just by thinking", **CBS**, June 2012  
"Scientists set to show how they hacked into Stephen Hawking's brain", **ABC (US)**, June 2012  
**ABC (Spain - cover)**, June 2012  
"Scientists developing device to 'hack' into brain of Stephen Hawking", **The Telegraph**, 06/12  
"Stephen Hawking to demonstrate iBrain technology next month", **Washington Post**, 06/12  
"From Seurat's dots to 'seeing' inside brain", **SD Union Tribune**, April 2012  
"iBrain can 'read your mind'; enlists Stephen Hawking", **Yahoo! News**, April 12  
"Whose brain would you like to hack?", **CNN Headline News**, April 2012  
"Stephen Hawking's Mind Reading Experiment and Big Bang Cameo", **Slate**, April 2012  
"iBrain could help Stephen Hawking speak again by reading his mind", **Fox News**, April 2012  
"What's Stephen Hawking Really Thinking?", **Forbes**, April 2012  
"iBrain creator wants to hack Stephen Hawking's brain", **Drudge Report**, April 12  
"iBrain Headband Can Read Your Thoughts", **Mashable**, April 2012  
"A Little Device That's Trying to Read Your Thoughts", **New York Times**, 4/12  
**Spring 2012, international news: Top News** (Arab Emirates), **Armenia Today** (Armenia), **Herald Sun** (Australia), **WA Today** (Australia), **Krone** (Austria), **Amazonia** (Brazil), **SRZD** (Brazil), **Veja** (Brazil), **Toronto Sun** (Canada), **CNYES** (China), **Sina** (China), **UDN** (China), **Wenhui** (China), **World Journal** (China), **Branchev-vous** (France), **French Tribune** (France), **Bild** (2 articles, Germany), **DIE WELT** (Germany), **Iefimerida** (Greece), **Madata** (Greece), **Newpost** (Greece), **Nooz** (Greece), **Ta Nea** (Greece), **Mathrumhumi** (India), **Republika** (Indonesia), **Viva News** (Indonesia), **The Marker** (Israel), **La Stampa** (Italy), **Punto Informatico** (Italy), **TV2** (Norway), **Newsweek** (Poland), **Interia** (Poland), **JPN** (Portugal), **Descopera** (Romania), **Libertatea** (Romania), **Slon** (Russia), **IT News** (Slovakia), **Dnevnik** (Slovenia), **Asia** (South Korea), **Kuki News** (South Korea), **MK** (South Korea), **EL PAÍS** (Spain), **Thanhnien** (Thailand), **Dipnot** (Turkey), **Hurriyet** (Turkey), **Ikrinform** (Ukraine), **Korrespondent** (Ukraine), **RBC** (Ukraine), **Daily Mail** (UK), **Int'l Business Times** (UK), **Discovery News** (US), **Fierce Medical Devices** (US), **Huffington Post** (2 articles, US), **Kurzweil** (US), **MedGadget** (US), **Minneapolis Star Tribune** (US), **NewsMax** (US), **New York Times** (2 articles, US), **Singularity Hub** (US), **Sky News** (US), **Washington Post** (US), **Dat Viet** (Vietnam), **Xaluan** (Vietnam).  
"Irwin Jacobs Stresses Business Need for Strong Educational, Cultural Climates", **The San Diego Business Journal**, February 2012  
"CEO: Innovation a Key Mayoral Issue", **The San Diego Business Journal**, February 2012  
"Fur Will Fly at First Scientific Conference on Animal Consciousness", **Huffington Post**, Jan12  
"Stephen Hawking: driven by a cosmic force of will", **The Telegraph**, January 2012  
"2012 Eye on Science: Here's a list of local researchers with projects in the spotlight", **La Jolla Light**, 12/11  
"FutureMed is Set to Blow Minds (Again) in February 2012", **MedGadget**, December 2011.  
"Top Innovative Health-Care companies", **The Washington Post**, July 2011.  
"Community Leader's View - Wanted: San Diego's most innovative new products", **La Jolla Light**, July 11.  
"New \$10 million X Prize launched for tricorder style medical device", **Nature Medicine**, 2011 July;17(7):754.  
"Mind Reader Company Valued At \$200+ Million In New Funding Round (video)", **Singularity Hub**, 05/11.  
"FutureMed Day 4 – Philip Low, Andrew Hessel, a Visit to Intuitive Surgical, and More," **MedGadget**, 05/11  
"La Jolla-based NeuroVigil completes significant initial financing round", **La Jolla Light**, 05/11.  
"NeuroVigil lands venture funding, impressive valuation" **MobiHealthNews**, 5/11. "Mystery Man Gives Mind-Reading Tech More Early Cash Than Facebook, Google Combined", **Fast Company**, May 2011.  
"Neurovigil, Brain Decoding Company, Gets Major Funding", **MedGadget**, May 2011.  
"NeuroVigil Raises Seed-Stage Financing", **Xconomy**, May 2011.  
"The 10 Most Innovative Companies in Health Care", **Fast Company**, March 2011.  
"The iPhone of Neurosciences", **BILAN** (Switzerland), March 2011.  
"The 10 Most Innovative Companies in Health Care", **Fast Company**, March 2011.  
"Mind Reader", **CORE**, UChicago College Magazine, December 2010.  
"Brave New Brain", **UCSD Alumni Magazine**, December 2010.



"NeuroVigil Wants To Speed Up Treatments Of Alzheimer's And Other Brain Diseases" **FORBES**, 12/10  
"AAA social networks of Private Swiss Boarding Schools" **BILAN** (Switzerland), December 2010.  
"NeuroVigil's iBrain Wins Most Innovative New Product Award", **CNBC**, December 2010.  
"NeuroVigil and Stanford begin home based Autism study" **Smartplanet**, December 2010.  
"How a brain sensor hopes to replace your shrink" **Smartplanet**, Oct. 2010.  
"MIT Lauds Top Innovators Under 35" **Medical Device and Diagnostic Industry**, Sept. 2010.  
"MIT Counts Local CEO Among World's Top Young Innovators" **San Diego Business Journal** Sept. 2010  
"San Diego phenom named top innovator" **Union Tribune**, August 25, 2010.  
"NeuroVigil CEO on MIT List of World's Top Innovators" **Forbes** 8/25/2010.  
"Philip Low, 31, Portable devices for monitoring brain activity", **MIT Tech Review** 08/25/2010.  
"Revolutionizing Sleep Science" **HuffingtonPost**, January 26, 2010.  
"The future of brain-controlled devices" **CNN**, January 4, 2010.  
"Gadgets and Ideas to Revolutionize Healthcare" **WIRED**, Nov. 4, 2009.  
"Prediction: Mass market for mHealth sensors" **Mobihealthnews**, Nov. 2, 2009.  
"iBrain Could Predict Drug Side Effects by Measuring Brainwaves" **DOTmednews**, Nov.2009.  
"Roche inks deal with sleep monitoring start-up" **Mobihealthnews**, 11/09.  
"Using Sleep As A Gateway Into The Brain" **HuffingtonPost**, Nov 2, 09.  
"TEDMED - Day 2" **MedGadget**, October 29, 2009.  
"Monitor sleep states from your mobile phone" & "OMB, Qualcomm, Intel and more" **Mobihealthnews**,  
October 29, 2009.  
"NeuroVigil and Roche Launch Personalized Neurodiagnostics Initiative for Enabling Preventive &  
Personalized Neurodiagnostics" **Forbes**, 10/29/09.  
"Featured Company. NeuroVigil: Simplifying Sleep." **Neurotech Insights™**  
THE NEUROTECHNOLOGY INDUSTRY NEWSLETTER, Vol 5:2, Feb. 09.p14  
"Bird Brains Key to the Functions of Sleep." **Science**.2008 Dec. 19;322(5909):1789.  
"Sleep and sensorimotor integration during early vocal learning in a songbird" Sylvan S. Shank and Daniel  
Margoliash. **Nature**. 2008 Dec 14.  
"At home Brain Scans" **Portfolio.com** November 19<sup>th</sup> 2008  
"Secret Sleep of Birds Revealed in Brain Scans", **New Scientist**, 7/08  
"In Sleep, We Are Birds of a Feather", **The New York Times & International Herald Tribune** July 1st  
2008 as well as **Discovery News, Yahoo! News**  
"NeuroVigil Inc., a Salk Institute spin off, Wins First Prize at World-Class UCSD \$50K Innovation  
Competition"  
**Forbes, Business Wire CNBC, Market Watch, Reuters, CBS, FDA News, Fox Business, Business  
Wire, Yahoo! Finance, BioSpace, TD Ameritrade, Wallstreet Online, Smart Brief, Markets, Denver  
Post**, (Spring 2008).  
"Draper Fisher Jurvetson, DFJ Frontier, and Zone Ventures Award \$250,000 to NeuroVigil in Fourth  
Annual DFJ Venture Challenge"  
**CNBC News, CBS News, Forbes, Market Watch, Business Wire, TED Feed, Yahoo Business, Yahoo  
Finance, MySpace News, Fox News**, (Spring 2008).  
"Memories Are Made Like This". **HHMI Bulletin**. May 2007.  
Researcher's hub. E-newsletter. **CONNECT**. March 2007.  
**Dispatches from the Frontiers of Science** Proto Mass General. Fall 07.  
"The Secrets of Sleep". **MIT Technology Review**. December 2006. Science & Technology, "Song  
Learning and Sleep". **Nature Neuroscience** 2005 May;8(5):546-8.  
"Sleeping with the Finches", **The Economist**. London. October 22nd 2003, p.79.  
"To sleep, perchance to dream" & "The dream of the zebra finch" **Biomednet**, Elsevier Press, 10/12/03.  
**Who's Who in America**, 2007-. **Who's Who in The World**, 2008-