

CURRICULUM VITAE

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I. EDUCATION

<u>DATES</u>	<u>INSTITUTION</u>	<u>DEGREE</u>
9/79-5/83	School of Engineering & Applied Science Columbia University, New York, NY	B.S. (Chemical Engineering)
8/83-6/85	Robert Wood Johnson Medical School Rutgers University, Piscataway, NJ	Transferred
8/85-6/91	Thayer School of Engineering, Dartmouth College, Hanover, NH	Ph.D. (Biomedical Engineering)
7/89-6/91	Dartmouth Medical School, Dartmouth College, Hanover, NH	M.D.

II. POSTDOCTORAL TRAINING

<u>DATES</u>	<u>INSTITUTION</u>	<u>SPECIALTY</u>
7/91-6/92	Walter Reed Army Medical Center Washington, DC	Categorical Neurology Internship (Internal Medicine)
7/92-6/95	Walter Reed Army Medical Center Washington, DC	Neurology Residency
7/95-6/96	Walter Reed Army Medical Center Washington, DC	Neuro-ophthalmology Fellowship

7/01-6/02	New York Presbyterian Hospital-Weill Cornell Medical Center and Memorial Sloan-Kettering Cancer Center New York, NY	Clinical Neurophysiology Fellowship (Intraoperative Neurophysiologic Monitoring and Epilepsy)
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III. ACADEMIC APPOINTMENTS

<u>DATES</u>	<u>INSTITUTION</u>	<u>TITLE</u>
1/81-6/81	Higher Education Opportunity Program School of Engineering & Applied Science Columbia University, New York, NY	Tutor (Mathematics, Chemistry, Physics)
9/81-6/83	Department of Mathematics Columbia University, New York, NY	Teacher Assistant (Calculus, Differential Equations)
9/83-6/85	Department of Mathematics Rutgers University, New Brunswick, NJ	Teacher Assistant (Calculus, Analytical Geometry, Algebra, Trigonometry)
7/92-7/96	Department of Neurology Uniformed Services University of Health Sciences, Bethesda, MD	Instructor
8/96-7/98	Texas A&M University College of Medicine College Station, TX	Assistant Professor of Medicine (Neurology & Neuro-ophthalmology)
9/98-6/01	Department of Neurology Universität des Saarlandes School of Medicine, Homburg, Germany	Clinical Instructor
7/02-6/10	Department of Neurology Weill Cornell Medical College Cornell University, New York, NY	Assistant Professor of Neurology and Neuroscience
8/03-6/10	Department of Ophthalmology Weill Cornell Medical College Cornell University, New York, NY	Assistant Professor of Neuro-ophthalmology in Ophthalmology
7/04-8/06	Department of Neurology Weill Cornell Medical College Cornell University, New York, NY	Director of Residency Program

8/10-3/14	Department of Neurology Geisel School of Medicine Dartmouth College, Hanover, NH	Assistant Professor of Neurology
5/11-6/14	Thayer School of Engineering Dartmouth College, Hanover, NH	Adjunct Assistant Professor of Engineering
4/14-4/21	Department of Neurology Geisel School of Medicine Dartmouth College, Hanover, NH	Associate Professor of Neurology
7/14- present	Thayer School of Engineering Dartmouth College, Hanover, NH	Adjunct Associate Professor of Engineering
5/21- present	Department of Neurology Geisel School of Medicine Dartmouth College, Hanover, NH	Professor of Neurology
7/21- present	Thayer School of Engineering Dartmouth College, Hanover, NH	Adjunct Professor of Engineering

IV. DARTMOUTH INSTITUTIONAL LEADERSHIP ROLES:

<u>DATES</u>	<u>INSTITUTION</u>	<u>TITLE</u>
8/10- present	Dartmouth-Hitchcock Medical Center	Director of Intraoperative Neurophysiologic Monitoring Service
8/14- present	Dartmouth-Hitchcock Medical Center	Director of Clinical Neurophysiology Fellowship Program
2/18- present	Geisel School of Medicine at Dartmouth	Director of MD-PhD Program

V. LICENSURE AND CERTIFICATION:

<u>DATE(S)</u>	<u>LICENSURE/CERTIFICATION</u>
7/92	Diplomate, National Board of Medical Examiners (Certificate #337306)
10/93	Pennsylvania Physician's License(#MD-051165-L, Inactive)

3/98, Diplomate, American Board of Psychiatry and Neurology
 3/09, (Neurology, Certificate #45593)
 12/19

5/01 New York Physician's License (#221297, Inactive)

3/03, Diplomate, American Board of Psychiatry and Neurology
 5/14 (Clinical Neurophysiology, Certificate #1382)

8/10 New Hampshire Physician's License (#14967, Active)

VI. HOSPITAL APPOINTMENTS:

<u>DATES</u>	<u>INSTITUTION</u>	<u>POSITION/TITLE</u>
8/96-7/98	Darnall Army Community Hospital Fort Hood, TX	Attending Neurologist and Neuro-ophthalmologist
8/98-6/01	Landstuhl (US Military) Regional Medical Center, Landstuhl, Germany	Attending Neurologist and Neuro-ophthalmologist
7/02-6/10	New York Presbyterian Hospital - Weill Cornell Medical Center New York, NY	Assistant Attending Neurologist, Clinical Neurophysiologist and Neuro-ophthalmologist
7/02-6/10	Memorial Sloan-Kettering Cancer And Hospital for Cancer and Allied Diseases, New York, NY	Clinical Assistant Neurologist
7/02-6/10	Hospital for Special Surgery, New York, NY	Neurology Consultant
11/03-8/08	New York Presbyterian Hospital - Weill Cornell Medical Center New York, NY	Co-Director of Intraoperative Neurophysiologic Monitoring
8/08-6/10	New York Presbyterian Hospital - Weill Cornell Medical Center New York, NY	Director of Intraoperative Neurophysiologic Monitoring
8/10- present	Dartmouth-Hitchcock Medical Center Lebanon, NH	Attending Neurologist, Clinical Neurophysiologist and Neuro-ophthalmologist

8/10-present	Dartmouth-Hitchcock Medical Center Lebanon, NH	Director of Intraoperative Neurophysiologic Monitoring
11/20-present	New London Hospital New London, NH	Attending Clinical Neurophysiologist (Teleneurology)
11/21-present	Alice Peck Day Hospital Lebanon, NH	Attending Clinical Neurophysiologist (Teleneurology)

VII. OTHER PROFESSIONAL POSITIONS (NON-DARTMOUTH):

<u>DATES</u>	<u>INSTITUTION</u>	<u>POSITION/TITLE</u>
2004-2010	Medical Reserve Corps New York, NY	Physician Volunteer
2011-2012	New England Handicapped Sports Association	Physician Volunteer
2011-2013	Vermont Adaptive Ski and Sports Program	Physician Volunteer
2019-present	Percept Corporation	Senior Advisor, Vertical Advisor Board

VIII. TEACHING ACTIVITIES:**A. UNDERGRADUATE (COLLEGE) EDUCATION**

<u>DATES</u>	<u>INSTITUTION</u>	<u>COURSE TITLE</u>	<u>ROLE</u>	<u>HOURS/YEAR</u>
2011-present	Dartmouth College	Clinical Neuro- physiology/Epilepsy Elective (for premedical students) Nathan Smith Society Shadowing Program (3-4 students/year)	Director/ Principal Instructor	50
2011-present	Thayer School of Engineering, Dartmouth College	ENGS 13 – Re-designing Healthcare: Virtual Medicine and Cybercare (~50 students/class)	Lecturer	3

B. UNDERGRADUATE MEDICAL EDUCATION:**i. CLASSROOM TEACHING:**

<u>DATES</u>	<u>INSTITUTION</u>	<u>COURSE TITLE</u>	<u>ROLE</u>	<u>HOURS/YEAR</u>
2009-2010	Weill-Cornell Medical College	Medical student Brain Interest Group (BIG) (15-20 students)	Lecturer	2
2010-2014, 2018	Geisel School of Medicine	Scientific Basis of Medicine, Neurology Course (~90 students/class)	Instructor	10
2011-present	Geisel School of Medicine	Clinical Neurophysiology/ Epilepsy Elective (for 1 st and 2 nd year GSoM students, 3-4 students/year)	Director/ Principal Instructor	50
2011-2012	Geisel School of Medicine	Brown Bag Lecture Series (25 students)	Lecturer	2
2011-2012	Geisel School of Medicine	Student Interest Group in Neurology (SIGN) (~20 students)	Faculty Advisor and Lecturer	10
2020-present	Geisel School of Medicine	Fundamentals of Clinical and Translational Research (I and II) – MDED 601, 602	Course Co-Director	20

ii. CLERKSHIP TEACHING

<u>DATES</u>	<u>INSTITUTION</u>	<u>COURSE TITLE</u>	<u>ROLE</u>	<u>HOURS/YEAR</u>
2002-2010	Weill Cornell Medical College	Neurology Clerkship (15-20 students/year)	Inpatient Attending	20
2010-present	Geisel School of Medicine	Neurology Clerkship (15-20 students/year)	Inpatient Attending	60
2018-present	Geisel School of Medicine	Physical Diagnosis Course (6-8 students/year)	Inpatient Bedside teaching	20

B. GRADUATE EDUCATION (List classes taught for Ph.D. and Masters students):**CLASSROOM TEACHING:**

<u>DATES</u>	<u>INSTITUTION</u>	<u>COURSE TITLE</u>	<u>ROLE</u>	<u>HOURS/YEAR</u>
2002-2010	Weill-Cornell Graduate School of Medical Sciences New York, NY	Systems Neuroscience Laboratory Research Meeting	Lecturer	5
Summer 2004	Weill-Cornell Graduate School of Medical Sciences New York, NY	Clinical Mini-Symposium for Training Program in Vision Research (~10 students)	Lecturer	2
Fall 2011	Geisel School of Medicine Dartmouth College	M.D.-Ph.D. Annual Retreat (25 students)	Faculty Panel	4
Summer 2012	Program in Experimental & Molecular Medicine Geisel School of Medicine Dartmouth College	PEMM 212 - Neurosciences II (~12 students)	Instructor	4
Winter 2013	Thayer School of Engineering Dartmouth College	ENGG 166 - Quantitative Human Physiology (~15 students)	Instructor	4
Spring 2014, 2016, 2018, 2020, 2024	Program in Experimental & Molecular Medicine/ Integrative Neuroscience at Dartmouth Program Geisel School of Medicine Dartmouth College	PEMM/IND 211/ W120 - Neurobiology of Disease (6-12 students)	Instructor	10

C. GRADUATE MEDICAL EDUCATION (Inclusive of instruction of residents and fellows during clinical practice):

<u>DATES</u>	<u>INSTITUTION</u>	<u>COURSE TITLE</u>	<u>ROLE</u>	<u>HOURS/YEAR</u>
2002-2010	Weill-Cornell Medical College	Neurophysiology and Epilepsy Didactic Lecture Series	Instructor	10
2002-2010	Weill-Cornell Medical College New York, NY	Comprehensive Epilepsy Center Research Conference	Lecturer	5
2010-	Dartmouth-Hitchcock	Epilepsy Service	Inpatient and	50

present	Medical Center		Consult Attending	
2010-present	Dartmouth-Hitchcock Medical Center	Clinical Neurophysiology Lecture Series	Director and Lecturer	6
2010-present	Dartmouth-Hitchcock Medical Center	Neuro-ophthalmology Lecture Series	Director and Sole Lecturer	12
2010-present	Dartmouth-Hitchcock Medical Center	Intraoperative Neurophysiologic Monitoring Case Review/Journal Club Conference	Director and Lecturer	6
2010-present	Dartmouth-Hitchcock Medical Center	EEG Conference (monthly)	Faculty	10
2010-present	Dartmouth-Hitchcock Medical Center	Multi-disciplinary Epilepsy Surgery Conference (weekly)	Faculty	50
2010-present	Dartmouth-Hitchcock Medical Center	Epilepsy/Clinical Neurophysiology Journal Club (bi-weekly)	Faculty	25
2013-2015	Dartmouth-Hitchcock Medical Center	Neurosurgery Resident Boards Topic Review	Faculty	3
2014-present	Dartmouth-Hitchcock Medical Center	Neurology Course for Psychiatry Residents	Lecturer	2

E. RESEARCH ADVISING/MENTORING

a. UNDERGRADUATE STUDENTS

<u>DATES</u>	<u>STUDENT'S NAME</u>	<u>PROGRAM / UNIVERSITY</u>
6-8/12	Sofia Campos	Dartmouth MD-PhD Undergraduate Summer Program / University of California at San Diego
12/13-5/14	Julia Ocampo	Senior Honors Project (Source localization of epileptic seizure discharges), Thayer School of

Engineering, Dartmouth College

5/22-8/22	Stephanie Dailey	College Summer Internship Program Dartmouth-Hitchcock Medical Center
5/22-8/22	James Surgenor	College Summer Internship Program Dartmouth-Hitchcock Medical Center
5/23-8/23	Isabel May	College Summer Internship Program Dartmouth-Hitchcock Medical Center
5/23-8/23	Kendyl Boisvert	College Summer Internship Program Dartmouth-Hitchcock Medical Center

b. GRADUATE STUDENTS

<u>DATES</u>	<u>STUDENT'S NAME</u>	<u>PROGRAM NAME</u>	<u>DEGREE</u>
5/11-11/12	Katherine Perdue	Thayer School of Engineering (Doctoral Committee Member)	Ph.D.
12/11-5/12	Brad Ficko	Thayer School of Engineering (Qualifying Examination Committee Member)	Ph.D.
5/12-6/14	Paolo Giacometti	Thayer School of Engineering (Doctoral Committee Member)	Ph.D.
9/13-8/14	Mohammed Talukdar	Thayer School of Engineering (Doctoral Committee Member)	Ph.D.
10/14-4/15	Emily Stephens	Dartmouth Program in Experimental and Molecular Medicine (Qualifying Examination Committee Member and Chair)	Ph.D.
3/16-9/16	Stephen Meisenhelter	Dartmouth Program in Experimental and Molecular Medicine (Qualifying Examination Committee Member)	Ph.D.
9/17-1/19	Alexandra Hamlin	Thayer School of Engineering (Mentor and Master's Degree Committee Member)	M.S.

3/20-5/23	Sarah Steimel	Dartmouth Program in Experimental and Molecular Medicine (Qualifying Examination and Doctoral Committee Member)	Ph.D.
12/23-6/24	Chelsea Popoola	Thayer School of Engineering (Master's Degree Mentor and Research Project Advisor)	M.Eng.

c. MEDICAL STUDENTS

<u>DATES</u>	<u>STUDENT'S NAME</u>	<u>PROGRAM NAME</u>
7/11-6/13	Junjie (Jay) Liu	Geisel School of Medicine (Research Mentor)

As Program Director, I have also served as a mentor for all of the Dartmouth MD-PhD students since 2018.

d. FELLOWS/RESIDENTS

<u>DATES</u>	<u>FELLOW/RESIDENT'S NAME</u>	<u>SPECIALTY</u>
7/02-6/03	Sonia Sandhu, D.O.	Intraoperative Neurophysiologic Monitoring (CNP)
7/03-6/04	Edward Avila, D.O.	Intraoperative Neurophysiologic Monitoring (CNP)
7/04-6/05	Padmaja Kandula, M.D.	Intraoperative Neurophysiologic Monitoring (CNP)
7/04-6/06	Marc Dinkin, M.D.	Neurology
7/05-6/07	Reza Zarnegar, D.O.	Intraoperative Neurophysiologic Monitoring (CNP)
7/07-6/08	Elayna Rubens, M.D.	Intraoperative Neurophysiologic Monitoring (CNP)
7/08-6/09	Puneet Singh, D.O.	Intraoperative Neurophysiologic Monitoring (CNP)

7/09-6/10	Edgar DePeralta, M.D.	Intraoperative Neurophysiologic Monitoring (CNP)
8/10-7/11	Matthias Ziller, M.D.	Clinical Neurophysiology (CNP)
7/10-6/11	Jim James, M.D.	Clinical Neurophysiology
7/11-6/12	Myrta Otero, M.D.	Clinical Neurophysiology
7/12-6/13	Alendia Hartshorn, M.D.	Clinical Neurophysiology
7/12-6/13	Charles Guardia, M.D.	Clinical Neurophysiology
7/13-6/14	Amanda Van Straten, M.D.	Clinical Neurophysiology
7/13-6/14	Tracie Caller, M.D.	Clinical Neurophysiology
7/14-6/15	Vijay Renga, M.D.	Clinical Neurophysiology
7/14-6/15	Shao-Hwa (Pius) Wei, D.O.	Clinical Neurophysiology
7/14-6/17	Aleksey Tadevosyan, M.D.	Neurology
7/15-6/16	Nathaniel Robbins, M.D.	Clinical Neurophysiology
7/15-6/16	Fernando Santos-Pinhiero, M.D.	Clinical Neurophysiology
7/16-6/19	Ryan Wilson, M.D.	Neurology
7/16-6/17	Yonglu (Lucy) Huang, M.D.	Clinical Neurophysiology
7/16-6/17	Carly Whitehead, D.O.	Clinical Neurophysiology
7/17-6/18	Tanya Kapoor, D.O.	Clinical Neurophysiology
7/18-6/19	Laura Ragoonanan, M.D.	Clinical Neurophysiology
7/18-6/19	Andrew Cichowski, M.D.	Clinical Neurophysiology
7/19-6/20	Ryan Wilson, M.D.	Clinical Neurophysiology
7/19-6/20	Harmanpreet Tiwana, M.D.	Clinical Neurophysiology
7/20-6/21	Sean Zadeh, M.D.	Neurology
7/20-6/21	Henry Martin-Yeboah, M.D.	Clinical Neurophysiology

9/20-8/21	Payam Moein, M.D.	Clinical Neurophysiology
7/21-6/22	Jason Randhawa, M.D.	Clinical Neurophysiology
7/21-6/22	David Benezra, M.D.	Clinical Neurophysiology
7/22-6/23	Animesh Gupta, M.D.	Clinical Neurophysiology
7/22-6/23	Peter Tatum, D.O.	Clinical Neurophysiology
7/23-9/23	Billie Hsieh, M.D.	Clinical Neurophysiology
7/23-present	Sophia Ahmad, D.O.	Neurology

e. JUNIOR FACULTY

<u>DATES</u>	<u>MENTEE'S NAME</u>	<u>SPECIALTY</u>
2018-present	Yinchen Song, Ph.D.	Biomedical Engineering/ Clinical Neurophysiology
2021	Aaron Tannenbaum, M.D., MSHP	Pulmonary and Critical Care Medicine

f. COMMUNITY EDUCATION:

<u>DATES</u>	<u>INSTITUTION</u>	<u>COURSE TITLE/ACTIVITY</u>	<u>ROLE</u>	<u>HOURS/YEAR</u>
9/12-12/14	Dartmouth-Hitchcock Medical Center	Epilepsy Patient Support Group	Lecturer	4

IX. RESEARCH FUNDING:**A. Current**

<u>DATES</u> (start and stop)	<u>PROJECT</u> (title/award #)	<u>ROLE</u> <u>%EFFORT</u>	<u>SPONSOR</u>	<u>ANNUAL</u> <u>DIRECT COSTS</u>
9/23-present	Sensing intracranial bioimpedance through anatomic windows for classifying stroke type	Co-I 1%	NIH NIBIB R21 (PI R Halter)	\$443,360
2/22-present	Utility of intraoperative neurophysiological monitoring (IONM) during transcarotid artery	Co-I 1%	Internal dept. funding (PI Y Song)	

	revascularization (TCAR) procedures			
10/21-present	Quantification of visual and auditory evoked potentials in individuals with sensorineural hearing loss	Co-I 1%	Internal dept. funding	
7/21-present	Functional connectivity and neurovascular coupling in glioma	Co-I 1%	Hitchcock Foundation (PI Y Song)	\$40,000
7/20-present	A study of high-density EEG and electrical imaging for structural and functional assessment of stroke	Co-I 2.5%	Hitchcock Foudation (PI E Murphy)	\$40,000
2/20-present	A device to detect and quantify seizures using non-cerebral sensor sensor modalities	PI 3%	Diamond Mini-Grant DHMC Dept. of Neurology	\$5000
11/19-present	Dense array EEG in epilepsy	Sub-I	Unfunded (PI Y Song)	
7/19-present	The role of brain wave monitoring in reducing the incidence of postoperative cognitive dysfunction	Co-I 1%	Hitchcock Foundation (PI MD Boone)	\$40,000
10/18-present	A device to detect and quantify seizures using non-cerebral sensor modalities	PI 3%	Department of Defense Epilepsy Research Program Idea Development Award	\$324,999
10/16-present	Electrophysiological localization of human brain function / Human intracranial electrophysiology	Co-I 1%	Diamond Research Development Award DHMC Dept. of Neurology/ NIMH 1R21MH124674-01A1 (PI K Bujarski)	\$200,000 \$232,669

B. Past

<u>DATES</u> (start and stop)	<u>PROJECT</u> (title/award #)	<u>ROLE</u> %EFFORT	<u>SPONSOR</u>	<u>ANNUAL</u> <u>DIRECT COSTS</u>
6/19-5/20	Source localization using high density EEG and brain MRI	Co-I 1%	Philips Neuro Diagnostics and Therapy, Inc.	
8/18-7/20	A multi-center investigator-initiated retrospective chart review of clinical outcomes in patients implanted with the new RNS [®] system	Local PI 1%	Neuropace, Inc.	
3/18-2/19	A device to detect and quantify seizures using non-cerebral sensor modalities	PI 3%	Reeves Mini-Grant DHMC Dept. of Neurology	\$5,000

6/17-5/18	Development of an efficient, more spatially resolute method to map functional regions of the brain using optical imaging techniques during intracranial surgery	Co-I 1%	Diamond Mini-Grant DHMC Dept. of Neurology (PI Y Song)	\$4000
5/17-5/19	Effects of anti-epileptic drugs on balance and reaction time	Co-PI 2%	American Epilepsy Society (PI A Hartshorn)	\$15,000
12/16-11/17	A device to detect and quantify seizures using non-cerebral sensor modalities	PI 3%	Reeves Grant DHMC Dept. of Neurology	\$50,000
9/16-8/17	Development of a new protocol to safely perform intraoperative neuromonitoring on patients in the MRI environment	Co-I 1%	Diamond Mini-Grant DHMC Dept. of Neurology	\$5000
7/16-6/19	Needle electrode testing in the intraoperative MRI setting	Co-I 1%	Diamond Mini-Grant DHMC Dept. of Neurology (PI Y Song)	\$5000
7/16-6/17	Intrinsic magnetic resonance elastography imaging of the brain in primary progressive multiple sclerosis	Co-I 1%	Hitchcock Foundation Pilot Grant (PI H Wishart)	\$30,000
11/15-10/17	A device to detect and quantify seizures using non-cerebral sensor modalities	PI 3%	Hitchcock Foundation Pilot Grant	\$17,000
11/14-5/18	Implantable Responsive Neurostimulation System (RNS) long term treatment clinical investigation for epilepsy post-approval study	Sub-I 1%	Neuropace Mountain View, CA (PI B Jobst)	>\$65,000
10/14-12/17	Brain functional connectivity in multiple sclerosis: An EEG-NIRS study MS130209	Co-I 2%	Dept. of Defense Idea Development Award (PI H Wishart)	\$597,811
9/14-8/16	Quantitation of spinal cord myelination by MRI #5 UL1TR0001086-02	Co-I 1.2%	Dartmouth SYNERGY Award	\$49,915
5/14-4/17	Metal-on-metal hip arthroplasty patients and neurologic symptoms	Physician evaluator 1%	Thayer School of Engineering (PI D Van Citters)	
4/14-2/16	Randomized, double-blind, placebo	Co-I	Upsher-Smith, Inc.	

	controlled trial examining the safety and efficacy of midazolam intranasal spray (USL261) for the treatment of intermittent bouts of seizure activity in the epilepsy monitoring unit (EMU)	1%	(PI K Bujarski)	
12/13-11/18	A multicenter, open-label, extension study to evaluate the long-term safety and efficacy of BIIB019, Daclizumab High Yield Process (DAC HYP), monotherapy in subjects with multiple sclerosis who have completed study 205MS301. EXTEND 205MS303	Sub-I	Biogen Idec (PI A Pachner)	
10/13-4/16	A multicenter, randomized, double-blind, parallel-group, placebo-controlled variable treatment duration study evaluating the efficacy and safety of Siponimod (BAF312) in patients with secondary progressive multiple sclerosis. CBAF312A2304	Sub-I	Novartis, Inc. (PI A Pachner)	
7/13-6/15	Design optimization of combined magnetoencephalography and susceptometry. R21 EB016241-01A1	Co-I 4.8%	NIH/NIBIB (PI S Diamond)	\$431,216
1/13-5/15	Portable brain recording device and app. SB131-002 #71011	Co-I 4%	Dept. of Defense DARPA SBIR Grant (PI W Audette)	\$97,295
9/12-8/15	Neurological head simulator for in-the-field EEG recordings, SBIR FY 10.2, Army Topic A10-066	Co-I 2.5%	Dept. of Defense SBIR Grant (PI D Kynor)	
9/12-8/15	Multicenter, randomized, double-blind, parallel-group active-controlled, group sequential superiority study to compare the efficacy and safety of Ponesimod to interferon β -1a (Avonex®) in patients with relapsing-remitting multiple sclerosis.	Co-I	Actelion, Inc. (PI A Pachner)	

8/12-7/18	CFTY720D2399 – A single arm, open-label, multicenter study evaluating the long-term safety, tolerability, and efficacy of 0.5 mg Fingolimod (FTY720) administered orally once daily in patients with multiple sclerosis.	EDSS Rater 1%	Novartis, Inc. (PI A Pachner)	
8/12-7/13	Feasibility study of wireless neural probes	PI 2.5%	Hitchcock Foundation Pilot Grant	\$30,000
7/12-7/14	NCT01064401 – Efficacy and safety of Daclizumab high yield process versus interferon β -1a (Avonex®) in patients with relapsing-remitting multiple sclerosis (DECIDE)	Co-I	Biogen Idec (PI A Pachner)	
5/12-4/17	FTY720D2403 – Long-term, prospective observational observational, multinational, parallel-cohort study monitoring safety in patients with multiple sclerosis newly started with Fingolimod (FTY720) once daily or treated with another approved disease-modifying therapy.	Co-I	Novartis, Inc. (PI A Pachner)	
9/11-10/15	N01379 - Open-label, Multicenter, follow-up study to evaluate the long-term safety and efficacy of Brivaracetam as adjunctive treatment for partial onset seizures.	Co-I	UCB Pharma, Inc. (PIs G Holmes/V Thadani)	>\$18,000
9/11-10/14	N01358 – Randomized, double-blind placebo-controlled, multicenter, parallel-group study to evaluate the efficacy and safety of Brivaracetam in subjects (16 to 80 years old) with partial onset seizures.	Co-I	UCB Pharma, Inc. (PIs G Holmes/V Thadani)	>\$25,728
7/11-10/15	A multicenter, randomized, double-blind, placebo-controlled study of the efficacy of Natalizumab on reducing disability progression in subjects with	EDSS Rater 1%	Biogen Idec (PI A Pachner)	

	secondary progressive multiple sclerosis (ASCEND SPMS) 101MS326			
2/11-7/16	A multicenter, double-blind, randomized, parallel-group, monotherapy, active-control study to determine the efficacy and safety of Daclizumab High Yield Process (DAC HYP) versus Avonex® (interferon β -1a) in patients with relapsing-remitting multiple sclerosis. 205MS301.	Sub-I	Biogen Idec (PI A Pachner)	
1/11-11/15	Prospective, open-label study of the structure (OCT, ocular fundus exam) and function (visual acuity and perimetry) of the retina in adult patients with refractory complex partial seizures treated with Vigabatrin (Sabril)	Co-I	Lundbeck, Inc. (PI B Jobst)	>\$43,371
1/11-5/14	N01358 - Randomized, double-blind, placebo-controlled multicenter, parallel-group study to evaluate the efficacy and safety of Brivaracetam in subjects with partial onset seizures.	Co-I	UCB Pharma, Inc. (PI G Holmes)	
11/10-5/11	Anatomic phantom for Operational EEG, Phase I SBIR FY 10.2, Army Topic A10-066	Co-I 2%	Dept. of Defense SBIR Grant (PI, D Kynor)	
12/10-1/15	A double-blind, placebo-controlled study of the safety and efficacy of ONO-4641 in patients with relapsing-remitting multiple sclerosis. ONO-4641 POU006	Sub-I	Ono Pharmaceutical Co. Ltd. (PI A Pachner)	
12/10-1/15	An extension study of the safety and efficacy of ONO-4641 in patients with relapsing-remitting multiple sclerosis.	Sub-I	Ono Pharmaceutical Co. Ltd. (PI A Pachner)	

	ONO-4641 POU007			
12/10-6/14	Biosensor with Optical Data Interface for Continuous Autonomic and Brain Activity Monitoring (BODI-CAM)	Co-I 1%	Dept. of Defense, Intelligence Advanced Research Projects Activity (DARPA) (PI A Scherer)	
8/09-6/14	EEG - Functional MRI (fMRI) imaging of epileptic spikes	Co-I 1%	Dept. of Medicine Research Grant Dartmouth-Hitchcock Medical Center (PI B Jobst)	\$35,000
1/09-6/10	Cornell Longitudinal Observational Study Evaluating Relapsing and progressive multiple sclerosis (CLOSER)	Co-I	Multiple Sclerosis Center Internal Grant Weill-Cornell Medical College (PI S Gauthier)	
5/08-11/12	Implantable Responsive Neurostimulation System (RNS) pivotal and long term treatment trial for epilepsy	Co-I 1%	Neuropace Mountain View, CA (PI B Jobst)	>\$104,550
4/07-6/10	Phase III placebo-controlled clinical trial of Fingolimod (FTY 720) in relapsing-remitting multiple sclerosis.	Co-I	Novartis, Inc. (PI S Gauthier)	
6/06-6/10	Neurophysiologic studies of neurostimulation therapies for epilepsy.	PI 5%	General Clinical Research Center Weill-Cornell Medical College	\$15,000
1/04-6/10	Stimulation of the Anterior Nucleus of the Thalamus for Epilepsy (SANTE')	Co-I 2.5%	Medtronic, Inc. Minneapolis, MN	
1/04-6/10	Responsive Neuro-stimulation System (RNS) for the treatment of epilepsy Externalized RNS trial -- Internalized RNS trial --	5% PI Co-I	Neuropace, Mountain View, CA (PI DR Labar)	
2/02-6/10	Central processing of visual information. 2-RO1-EY07977	Co-I 1%	NIH/NEI (PI JD Victor)	
7/01-6/10	Multi-disciplinary studies	Co-I	NIH/NINDS, Dana	

	of severe brain injury. 5 R21 NS43451-02	10%	Foundation, Dept. of Defense (PI ND Schiff)	
7/00-6/01	The use of digital nerve nerve fiber layer analyzer for remote ophthalmologic and neuro-ophthalmologic evaluation.	Co-I 5%	U.S. Army Medical Department P8 Grant (PI T. Hess)	\$90,000
7/00-6/01	The use of a digital slit lamp camera and telemedicine for remote ophthalmologic and neuro-ophthalmologic evaluation.	PI 5%	U.S. Army Medical Department P8 Grant	\$75,000
7/99-6/00	The use of digital funduscopy and angio- graphy for the remote evaluation of the retina and ocular fundus via telemedicine.	PI 5%	U.S. Army Medical Department P8 Grant	\$80,000
1/86-6/89	Pre-doctoral Fellow	Graduate Student 100%	National Heart, Lung and Blood Institute – NIH National Research Service Award (T32)	Tuition + stipend
9/85-12/85	Pre-doctoral Fellow	Graduate Student 100%	Thayer School of Engineering Dartmouth College	Tuition + stipend

C. Pending

<u>DATES</u> (start and stop)	<u>PROJECT</u> (title/award #)	<u>ROLE</u> <u>%EFFORT</u>	<u>SPONSOR</u>	<u>ANNUAL</u> <u>DIRECT COSTS</u>
7/24-6/26	Incorporating electrical impedance imaging into SEEG for improved characterization of epileptogenic zones: A porcine study	Co-I 1%	NIH-NIBIB R21 (PI E Murphy)	

X. PROGRAM DEVELOPMENT (List any educational, clinical or research entities at Dartmouth that were created or notably advanced by your efforts):

1. Director of the Dartmouth Neurology Grand Rounds Lecture Series (1/12-6/15). I significantly expanded the breadth of lecture topics by including basic science and engineering faculty at Dartmouth College. I also established the online digital archive

for this lecture series. This electronic resource enables faculty, fellows, residents and students to view lectures at a later time, and also to refer to this valuable electronic library resource on demand.

2. Founder and sole lecturer of the Dartmouth Neuro-ophthalmology lecture series for Neurology residents, fellows and rotating medical students (8/10-present). I devised a comprehensive lecture series, which was non-existent upon my arrival to the department, and provide these lectures on a monthly basis. This periodic GME conference enhances the education of our trainees and students, which is essential for their practice of neurology, as well as their preparation for the board examination.
3. Director and lecturer of the Clinical Neurophysiology (CNP) lecture series for Dartmouth Neurology fellows, residents and students (6/11-present). I significantly revised and expanded this series such that a comprehensive set of lectures is provided to our trainees each academic year. This periodic GME conference enhances the education of our trainees and students, which is essential for their practice of neurology, as well as their preparation for the board examination.
4. Director of the Dartmouth-Hitchcock Intraoperative Neurophysiologic Monitoring Service (8/10-present). Since my arrival here the number of surgical cases monitored each year has more than doubled, without any corresponding increase in our staff and faculty. Despite our significantly increased clinical load, through my leadership we have been able to increase our capacity for the surgeons. At the same time we have developed and implemented technologic innovations for the diagnostic procedures we perform in the intraoperative setting for the broad array of cases we monitor, e.g., intracranial, spine, vascular, otolaryngologic and peripheral nervous system. We are also now performing multiple clinical neurophysiologic research studies in the intraoperative setting.
5. I am the first intraoperative clinical neurophysiologist to participate in the Reconstructive International Cooperation Exchange (RICE) humanitarian surgical missions to Vietnam organized by Dr. Joseph Rosen of the DHMC Plastic Surgery Service. <http://engineering.dartmouth.edu/rice/> Thus far, I have participated in 3 missions during 2016, 2018 and 2019, and plan to continue this for years to come. I provided intraoperative neurophysiologic monitoring for peripheral nerve reparative and transfer, as well as muscle transposition procedures. This has resulted in significantly improved outcomes for these surgeries of patients for whom this innovative technology would not be available. I also teach the local physicians and surgeons about intraoperative electrodiagnostic procedures. They have no such education or exposure during their training, nor in their clinical practice.
6. Director of the Dartmouth Clinical Neurophysiology (CNP) Fellowship Program (8/14-present). Under my leadership we have continued to successfully recruit excellent trainees and to provide them with high quality, comprehensive, academic training in this very broad subspecialty, which encompasses the very complex central and peripheral nervous systems. We provide them with in depth experience and teaching of state-of-the-art electrodiagnostic procedures, such that they are able to independently perform and interpret these studies after their intensive year of training. A reflection of this is their high subspecialty board examination pass rate. Given the significantly increased case load, we now have the opportunity to implement an Intraoperative

Neurophysiologic Monitoring CNP Fellowship track. We have introduced this training option several years ago.

7. Director of the Dartmouth MD-PhD Program (2/17-present). Under my leadership we continue to successfully recruit and train superb students who become well accomplished and successful physician scientists in a broad array of biomedical disciplines. Our program is relatively small compared to the national average, so it is not an ideal size for our institution. Therefore, one of our most important objectives is to increase the number of MD-PhD students in our program. In order to achieve this, we have been meeting with leaders in various departments throughout the Dartmouth College and Dartmouth-Hitchcock campuses to solicit support, i.e., Thayer School of Engineering, Psychology and Brain Sciences, Norris Cotton Cancer Center, and the DHMC Administration. Thus far, these leaders have expressed enthusiasm and support for this cause. We will continue with our concerted efforts in this regard and will hopefully be able to increase the number of students in this important academic program within a few years.
8. Director of the Dartmouth-Hitchcock Intraoperative Neurophysiologic Monitoring (IONM) Service (08/10-present). Under my leadership the service has expanded substantially such that we now monitor several fold more surgeries each week for the full spectrum of subspecialty surgeons, i.e., neurosurgery, orthopedic surgery, vascular surgery, otolaryngology and plastic surgery. Our team has expanded to include 3 IONM technologists and a biomedical engineer in order to accommodate the significantly increased demand. In addition, we are able to provide IONM services at affiliated hospitals, i.e., New London and Alice Peck Day Hospitals.

XI. ENTREPRENEURIAL ACTIVITIES (List any patents, licenses or other entrepreneurial activities):

Ray L, Hall HK, Lever J, Taylor S, **Kobylarz E**. System and method for identifying ictal states in a patient. U.S. application or PCT international application number 15/400,789 filed on January 6, 2017, Patent Number 10,485,471 awarded 26 Nov. 2019

<https://patents.justia.com/patent/10485471> <https://patents.google.com/patent/US10485471B2/en>

XII. MAJOR COMMITTEE ASSIGNMENTS:

National/International

<u>DATES</u>	<u>COMMITTEE</u>	<u>ROLE</u>	<u>INSTITUTION</u>
1/96-7/98	Comprehensive Clinical Evaluation Program (CCEP, U.S. Army Surgeon General Gulf War Illness Study)	Neurology Consultant	U.S. Army
8/98-6/01	U.S. Army	Clinical Director	European Regional Medical

	Telemedicine Program	and U.S. Army Surgeon General Consultant	Command and Landstuhl Regional Medical Center, Landstuhl and Heidelberg, Germany
2/11-2/13	"Neurology on the Hill" Advocacy Program	DHMC and New Hampshire Representative	American Academy of Neurology Congressional Committee
2/14-present		Board Member	Eastern Association of Electroencephalographers (International)
2/18-2/20		President	Eastern Association of Electroencephalographers (International)
3/19	NSF Smart and Connected Health Panel in Information & Intelligent Systems Division	Grant Review Panelist	National Science Foundation
1/20-present	AES Early Career Research Program	Grant Review Panelist	American Epilepsy Society
1/20-present	NSF National Artificial Intelligence Research Institutes Competition	Interdisciplinary Grant Review Panelist	National Science Foundation

Regional

<u>DATES</u>	<u>COMMITTEE</u>	<u>ROLE</u>	<u>INSTITUTION</u>
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Institutional

<u>DATES</u>	<u>COMMITTEE</u>	<u>ROLE</u>	<u>INSTITUTION</u>
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7/04-8/06	Graduate Medical Education Committee	Neurology Department Representative	New York Presbyterian Hospital – Weill Cornell Medical Center
7/04-6/10	Neurology Residency Academic Committee	Director of Neurology	New York Presbyterian Hospital – Weill Cornell

		Resident Research	Medical Center
8/10- present	Clinical Neurophysiology Fellowship Program	Director, Didactic Lecture Series	Department of Neurology Dartmouth-Hitchcock Medical Center
8/10- present	Neurology Residency Program	Director, Didactic Clinical Neurophysiology Lecture Series	Dartmouth-Hitchcock Medical Center
8/10- present	Neurology Residency Recruitment Committee	Committee Member	Dartmouth-Hitchcock Medical Center
8/10- present	Clinical Neurophysiology Fellowship Recruitment Committee	Committee Member	Dartmouth-Hitchcock Medical Center
12/10- 7/15	Scientific Review Committee	Chairman	Department of Neurology Dartmouth-Hitchcock Medical Center
6/11-6/21	Program in Experimental and Molecular Medicine Graduate Neuroscience Education Committee	Neurology Department Representative	Geisel School of Medicine Graduate Program
10/11- present	MD-PhD Program Admissions and Advisory Committee (AAC)	Faculty Member	Dartmouth College and Geisel School of Medicine
11/11- present	Geisel Medical Student Science Scholars Program and Panelist	Faculty Advisor	Geisel School of Medicine
1/12- 12/14	Neuroscience Faculty Search Committee	Committee Member	Department of Neurology Dartmouth-Hitchcock Medical Center
1/12-6/15	Department of Neurology Grand Rounds Lecture Series	Director	Dartmouth-Hitchcock Medical Center
4/12-3/14	HEaD - Hippocratic Exchange at Dartmouth (Student Diversity	Faculty Mentor	Geisel School of Medicine

	Program)		
6/13-5/14	Task Force for Research In the Department of Neurology (TAFORDON)	Committee Member	Department of Neurology Dartmouth-Hitchcock Medical Center
7/13-present	Epilepsy Fellowship Recruitment Committee	Committee Member	Dartmouth-Hitchcock Medical Center
2/14-8/14	Multiple Sclerosis and Neuroimmunology Faculty Search Committee	Committee Member	Department of Neurology Dartmouth-Hitchcock Medical Center
7/14-present	Residency Program Evaluation & Clinical Competency Committees	Committee Member	Department of Neurology Dartmouth-Hitchcock Medical Center
7/14-present	Fellowship Program Evaluation & Clinical Competency Committees (Epilepsy and Clinical Neurophysiology)	Committee Member	Department of Neurology Dartmouth-Hitchcock Medical Center
8/14-present	Graduate Medical Education Committee	Clinical Neurophysiology Fellowship Program Representative	Dartmouth-Hitchcock Medical Center
2/15-12/15	Clinical Neurophysiology Faculty Search Committee	Committee Member	Department of Neurology Dartmouth-Hitchcock Medical Center
3/15-2/16	Epilepsy Faculty Search Committee	Committee Member	Department of Neurology Dartmouth-Hitchcock Medical Center
7/17-6/23	Faculty Council	Neurology Dept. Representative	Geisel School of Medicine at Dartmouth
2/18-present	MD-PhD Undergraduate Summer Fellowship Program	Faculty Advisor	Geisel School of Medicine at Dartmouth
2/19	Research Career in Medicine Workshop	Faculty Panelist	Geisel School of Medicine

10/19-present	Data Safety Monitoring Committee (Brain stimulation research in humans)	Physician Monitor	Dartmouth-Hitchcock Medical Center
1/20-present	Medical Devices Faculty Search Committee	Committee Member	Thayer School of Engineering at Dartmouth
2/20-present	Geisel Medical Student Research Awards Committee	Committee Member	Geisel School of Medicine at Dartmouth
5/20-2/21	Research Operations <i>Ad Hoc</i> Committee	Committee Member	Geisel School of Medicine at Dartmouth Faculty Council
5/20-6/21	Neurology Research Advisory Committee	Committee Member	Geisel School of Medicine at Dartmouth
7/21-present	Integrative Neuroscience at Dartmouth Program Admissions Committee	Committee Member	Dartmouth College
7/21-present	Academic Appointments, Promotions and Titles Committee	Committee Member	Department of Neurology Geisel School of Medicine at Dartmouth
5/23-Present	Digital Health and Artificial Intelligence Advisory Committee	Co-leader	Geisel School of Medicine at Dartmouth

XIII. MEMBERSHIPS, OFFICE AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES:

<u>DATES</u>	<u>SOCIETY</u>	<u>ROLE</u>
1986-94	Biomedical Engineering Society	Member
1992-present	American Academy of Neurology (AAN)	Member of Clinical Neurophysiology, Epilepsy, Neurological Education, Neuro-Ophthalmology/Neuro-Otology, Sports Neurology and Sleep Medicine Sections
1993-present	North American Neuro-Ophthalmology Society	Member of Informatics and Curriculum Committees

1998-2001	German-American Medical Society	Member
2000-2001	American Telemedicine Association	Member
2003-2010	New York Academy of Sciences	Member
2003-present	American Clinical Neurophysiology Society	Member of Medical Instrumentation and Resident & Fellow Education Committees
2003-present	American Society of Neurophysiologic Monitoring	Member of Guidelines and Research & Investigation Committees
2004-present	Association of University Professors of Neurology	Member
2004-present	American Epilepsy Society	Member of Engineering and Epilepsy, Neurostimulation, and Translational Research Special Interest Groups
2006-2010	Society for Neuroscience	Member
2006-2010	Pituitary Network Association	Member
2010-present	Eastern Association of Electroencephalographers	Member, Board Member 2/14-present President 2/18-2/20
2010-present	Northern New England Neurological Society	Member
2011-present	Society for Neuroscience – New Hampshire Chapter	Member
2011-2015	AAN Student Interest Group in Neurology (SIGN), Geisel School of Medicine Chapter	Faculty Advisor
2017-present	American Association of Medical Colleges – Graduate Research, Education and Training Group	Member

(AAMC – GREAT)

2018-present	New York Academy of Sciences	Member
2023-present	American Clinical Neurophysiology Society	Annual Course Director - Evoked Potentials

XIV. EDITORIAL BOARDS:

<u>DATES</u>	<u>SOCIETY</u>	<u>ROLE</u>
2013-present	Symbiosis Open Journal of Neurology	Editorial Board Member
2017-present	Neurology and Neuroscience Research	Editorial Board Member
2017-present	Clinical Studies in Epilepsy	Editorial Board Member
2021-present	Micromachines: Biology and Biomedicine Special Issue “Intracranial Electrodes for Epilepsy: Fabrication, Applications and Indications”	Guest Editor

XV. JOURNAL REFEREE ACTIVITY (Reviewer):

<u>DATES</u>	<u>JOURNAL NAME</u>
2001-2010	Faxwatch (Category Insights - Neurology)
2003-present	Annals of Neurology
2004-present	Documenta Ophthalmologica
2004-present	Vision Research
2007-2010	Neurology Alert
2008-present	Journal of Pediatric Neurology
2010-present	MedLink Neurology

2011-present	Epilepsy Research
2012-present	Headache
2012-present	Journal of Neural Engineering
2012-present	Journal of Neurophysiology
2013	Abstract Reviewer - American Academy of Neurology Annual Conference
2013-present	Brain Imaging and Behavior
2016-present	Clinical Neurology and Neurosurgery
2017-present	Clinical Studies in Epilepsy (e-book)
2019-present	Brain Sciences
2020-present	IEEE Transactions on Biomedical Engineering
2020-present	Neurology
2021-present	Frontiers in Neuroscience

XVI. AWARDS AND HONORS:

<u>DATE</u>	<u>AWARD</u>
1974	American Legion Citizenship Award
1975	Eagle Scout, Order of the Arrow, Boy Scouts of America
1976	Spanish Honorary Society (President)
1977-8	Student Council (President)
1978	National Honor Society
1979-83	Dean's List, School of Engineering and Applied Science, Columbia University
1983	Phi Lambda Upsilon - Chemical Honorary Society
1983-5+ 1989-91	U.S. Army Health Professions Scholarship Recipient

1991	U.S. Army Service Ribbon
1992	U.S. Army Desert Storm Service Support Medal
1993	U.S. Army Superior Unit Award (Walter Reed Army Medical Center)
1994	Neurology Resident Research Award, 2 nd Place, Walter Reed Army Medical Center
1995	Neurology Resident Research Award, 1 st Place, Walter Reed Army Medical Center
1998	U.S. Army Achievement Medal
2001	U.S. Army Meritorious Service Medal for 10 years of active duty service as a physician and officer, achieving the rank of Lieutenant Colonel

XVII. INVITED PRESENTATIONS:

***Please note that I was individually invited to present all of the following lectures*
Lectures with (^) indicate that the talk/presentation was applicable as a CME activity.***

International Meetings:

<u>DATE</u>	<u>TOPIC/TITLE</u>	<u>ORGANIZATION</u>	<u>LOCATION</u>
2019	Intraoperative Neurophysiologic Neurophysiologic Monitoring *	Weill-Cornell Medical College – Hamad Hospital Neurology Grand Rounds	Doha, Qatar
2019	Stereo-EEG *	Eastern Assoc. of Electroencephalogra- -phers Annual Conference	Montreal Neurologic Institute, McGill University, Montreal, Canada
2013	Neurostimulation Therapies for Epilepsy *	2 nd International Dartmouth-Rennes Montreal Epilepsy Mini Symposium	Dartmouth- Hitchcock Medical Center
2012	Biomedical Engineering Applications in Clinical Neurophysiology Research *	1 st International Dartmouth-Rennes Montreal Epilepsy Mini Symposium	Dartmouth- Hitchcock Medical Center

2010	Intraoperative Neurophysiologic Monitoring Update *^	Open Medical Institute, American Austrian Foundation (OMI, AAF)	Salzburg, Austria
2010	Neuro-Ophthalmology Evaluation Workshop *^	OMI, AAF	Salzburg, Austria
2010	Neuro-Ophthalmology Update*^	OMI, AAF	Salzburg, Austria
2010	Visual Agnosias *^	OMI, AAF	Salzburg, Austria
2008	Intraoperative cortical mapping*^	Sociedad Española de Neurofisiología Clínica	Castellón, Spain
2008	Neurophysiologic studies and emerging therapies for patients in the minimally conscious state*^	International Association of Bioethics(IAB), 5th International Symposium of the Definition of Death Network	Varadero, Cuba
2002	Intraoperative Neurophysiologic Monitoring – The Cornell Medical College Approach *^	Neurozentrum Seminar	Department of Neurology, Universitätsklinik Bonn, Germany
2001	Optic Nerve Disorders *^	European Regional Medical Command (ERMC, U.S. Military) Annual Optometry Conference	Bad Kissingen, Germany
2001	Visual Perception Disorders *^	ERMC Annual Optometry Conference	Bad Kissingen, Germany
2001	Neurologic Aspects of Aging *^	ERMC Annual Optometry Conference	Bad Kissingen, Germany
2001	European Regional Medical	U.S. Military	Ramstein, Germany

	Command Telemedicine Update *	Deployment Medicine Conference	
2000	European Regional Medical Command Telemedicine Update and Panel Discussion *	U.S.-German Military (Bundeswehr) Joint Medical Conference	Ulm, Germany
2000	European Regional Medical Command Telemedicine Update and Panel Discussion*^	British National Health Service (NHS) Telemedicine Conference	Nottingham, England
2000	Electrodiagnostic Testing for Eye Diseases *^	ERMC Annual Optometry Conference	Bad Kissingen, Germany
2000	Pharmacology of Migraines *^	ERMC Annual Pharmacy Conference	Bad Kissingen, Germany
2000	A Collection of Interesting Neuro-Ophthalmology Clinical Cases *^	ERMC Annual Optometry Conference	Bad Kissingen, Germany
2000	Visual Field Analysis *^	ERMC Annual Optometry Conference	Bad Kissingen, Germany
2000	Visual Field Analysis*^	ERMC Quarterly Optometry Conference	Würzburg, Germany
2000	European Regional Medical Command Telemedicine Update *	ERMC Commanders' Conference	Heidelberg, Germany
2000	Afferent Visual Disorders *^	ERMC Annual Medical-Surgical Conference	Sonthofen, Germany
2000	Vestibular disorders *^	ERMC Annual Medical-Surgical Conference	Sonthofen, Germany
1999	"Headache Update – Is it really a migraine?" *^	ERMC Annual Primary Care	Weinheim, Germany

		Conference	
1999	Ocular Motor Disorders *^	ERMC Annual Optometry Conference	Weinheim, Germany
1999	Pupillary Disorders *^	ERMC Annual Optometry Conference	Weinheim, Germany
1999	“Those Dizzy Patients! – Do they have real or not-so-real vertigo?” *^	ERMC Annual Medical-Surgical Conference	Bad Kissingen, Germany
1999	Stroke Treatment Update *^	ERMC Annual Medical-Surgical Conference	Bad Kissingen, Germany
1998	“Those Dizzy Patients! – Do they have real or not-so-real vertigo?” *^	Neurology Grand Rounds	Universität des Saarlandes, Homburg, Germany

National Meetings:

<u>DATE</u>	<u>TOPIC/TITLE</u>	<u>ORGANIZATION</u>	<u>LOCATION</u>
2024, 2023	Visual Evoked Potentials	American Clinical Neurophysiology Society	Orlando, FL Austin, TX,
2011	Neurological EEG Head Phantom *	Phase I SBIR Final Results Meeting	US Army Aberdeen Proving Grounds, MD
2011	Intraoperative Neurophysiologic Monitoring Update – “Please don’t pass gas!...” *^	Anesthesiology Grand Rounds	Walter Reed Army Medical Center, Washington, DC
2007	Neurostimulation Effects on EEG Power Spectra and Coherence *^	American Epilepsy Society, Neurostimulation Special Interest Group	Philadelphia, PA
2005	Functional Neuroimaging in Disorders of Consciousness: Implications for Diagnosis,	National Academy of Neuropsychology	Tampa, FL

Prognosis and Treatment *^

Regional/Local Meetings:

<u>DATE</u>	<u>TOPIC/TITLE</u>	<u>ORGANIZATION</u>	<u>LOCATION</u>
2023	EEG electrode localization with 3D iPhone scanning using point-cloud electrode selection (PC-ES; with Prof. E. Murphy, et al.)*	Neurology Research Day	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2023	Neuro-ophthalmology – much more than meets the eye!!	Northern New England Neurological Society	Killington, VT
2022	Electrical impedance imaging – facilitating the study of neurologic diseases. *^ (with Prof. R. Halter)	Neurology Grand Rounds	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2021	I just want to say one word to you, “Neuroplasticity!” *^	Neurology Grand Rounds	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2019	“Oh, the places we can go!” – Artificial intelligence applications in neurology *^	Neurology Grand Rounds	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2018	A device to detect and quantify seizures using non-cerebral sensor modalities*	Neurology Research Day	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2017	Recent Advances in Neuro-Neuro-ophthalmology *^	Northern New England Neurological Society	Stowe, VT
2017	Exercise and brain function – “It’s not how you look, but how you <u>feel</u> ...!” *^	Neurology Grand Rounds	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2016	A “Smart” device to detect and	Neuroscience Day at	Dartmouth College

	quantify seizures. *	Dartmouth	Hanover, NH
2016	Wearable devices in Neurology; How “Smart” are these gadgets? *^	Neurology Grand Rounds	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2014	Intraoperative Neurophysiologic Monitoring and Brain Mapping *	American Academy of Professional Coders Conference	Lebanon, NH
2014	Traumatic Brain Injury - Neurologic consequences and treatment *^	Northern New England Neurological Society	Essex, VT
2013	Vertigo – Is it benign and positional, or something more?*^	Northern New England Neurological Society	North Conway, NH
2013	“Why I wanted to be a neurologist when I grew up...”*	Brown Bag Lunch Medical Career Lecture Series	Geisel School of Medicine, Dartmouth College, Hanover, NH
2013	Those “dizzy” patients! Vertigo diagnosis and treatment *	Rehabilitation Department	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2013	Neurostimulation Therapies for the Treatment of Epilepsy *	Section of Neuropsychology Research Symposium Series	Geisel School of Medicine, Dartmouth College, Hanover, NH
2012	The Seizure Examination *	Annual Neurologic Nursing Retreat	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2012	Biomedical Engineering Applications in Clinical Neurophysiology Research *	Annual Neurosurgery Research Symposium	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2012	Biomedical Engineering Applications in Clinical Neurophysiology *^	Northern New England Neurological Society	North Conway, NH

2012	Of agnosics, strabismics and nystagmics - Rehabilitation considerations in neuro-ophthalmology *	Rehabilitation Department	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2012	Of agnosics, strabismics and nystagmics - The neuro-ophthalmologic sequelae of head injuries *	Rehabilitation Medicine Brain Injury Patient Support Group	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2012	Disorders of Consciousness, Neurorehabilitation Considerations *	Rehabilitation Department	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2012	Biomedical Engineering Applications in Clinical Neurophysiology Research *	Neurosurgery Research Symposium	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2012	Biomedical Engineering Applications in Clinical Neurophysiology *	Engineering and Medicine: Partners in Innovation. Thayer School of Engineering-Geisel School of Medicine Annual Alumni Reunion	Thayer School of Engineering, Dartmouth College, Hanover, NH
2012	Eye Movement Disorders *^	Ophthalmology Grand Rounds	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2011	E-Doctors Without Borders: International Health Care Delivery via Telemedicine *^	Northern New England Neurological Society	Portland, ME
2011	Optically Powered Wireless Neural Probes (with Axel Scherer and Solomon Diamond) *	Psychological and Brain Sciences Lecture Series	Dartmouth College, Hanover, NH
2011	Intraoperative Neurophysiologic Monitoring Update – “We’re not here just	Neurosurgery Grand Rounds	Dartmouth-Hitchcock Medical Center, Lebanon,

	to annoy you!..." *		NH
2011	Neurophysiologic Correlates of Consciousness *	Pathophysiological Basis of Brain Diseases Lecture Series	Dartmouth Medical School, Lebanon, NH
2011	The Seizure Examination *	Epilepsy Nurse Retreat	Dartmouth-Hitchcock Medical Center, Lebanon, NH
2011	"Why I wanted to be a neurologist when I grew up..."*	Brown Bag Lunch Medical Career Lecture Series	Dartmouth Medical School, Lebanon, NH
2011	Neurology on the Hill - "Mr. Kobylarz goes to Washington."*^	Neurology Grand Rounds	Dartmouth-Hitchcock Medical Center , Lebanon, NH
2010	A Case of Neuroplasticity after Severe Head Trauma *^	Internal Medicine Morbidity and Mortality Conference	VA Hospital, White River Junction, VT
2010	Intraoperative Neurophysiologic Monitoring – "Don't shoot the messenger!..." *^	New England Society of Electroneurodiagnostic Technologists	University of Massachusetts Medical Center, Worcester, MA.
2010	Neuro-Ophthalmology Update*^	Northern New England Neurological Society	Portland, ME
2010	Transcranial Magnetic Stimulation *	Functional MRI Laboratory	Memorial Sloan-Kettering Cancer Center, New York, NY
2005	Intraoperative Neurophysiologic Monitoring*^	Current Techniques, Current Trends and Treatment Techniques in Pediatric & Adult Idiopathic Scoliosis Symposium	Hospital for Special Surgery, New York, NY
			New York

2005	Neurostimulation Therapies for epilepsy – EEG Analysis *^	Neurological Surgery Grand Rounds	Presbyterian Hospital – Weill Cornell Medical Center, New York, NY
2004	Intracranial Stimulation Therapies for Epilepsy *^	Neurostimulation in Neurology and Psychiatry, First Annual Symposium - New York Institute for Neural Stimulation and Remodeling	New York Presbyterian Hospital – Weill Cornell Medical Center, New York, NY
2004	Neuro-ophthalmologic consultation in neurosurgery *	Neurosurgery Department Weekly Conference	Memorial Sloan-Kettering Cancer Center, New York, NY
2003	Novel Techniques in Epilepsy Surgery – The Future: Emerging Intracranial Stimulation Therapies for Epilepsy *^	Epilepsy Surgery Update	New York Presbyterian Hospital – Weill Cornell Medical Center, New York, NY
2003	Transcranial electrical motor evoked potentials *	Neurosurgery Weekly Conference	Memorial Sloan-Kettering Cancer Center, New York, NY
2000	Functional (“Non-organic”) Visual Disorders *^	Hospital Grand Rounds	Landstuhl Military Regional Medical Center, Landstuhl, Germany
1999	Telemedicine Update *^	Internal Medicine Grand Rounds	Landstuhl Military Regional Medical Center, Landstuhl, Germany
1995	Neuropharmacology Update *	Military Physical and Occupational Therapy Society Biennial Meeting	Walter Reed Army Medical Center, Washington, DC
			Walter Reed Army

1995	Stroke *	Military Physical and Occupational Therapy Society Biennial Meeting	Medical Center, Washington, DC
1995	Magnetoencephalography *^	Neurology Grand Rounds	Walter Reed Army Medical Center, Washington, DC
1994	Neurologic applications of neural networks *^	Neurology Grand Rounds	National Naval Medical Center, Bethesda, MD
1993	Pupillary responses to retinal bleach in normal humans *^	Neurology Grand Rounds	Walter Reed Army Medical Center, Washington, DC
1991	Diaphragmatic electromyogram and airflow responses to imperceptible mechanical loads in conscious humans *^	Neurology Grand Rounds	Walter Reed Army Medical Center, Washington, DC

XVIII. BIBLIOGRAPHY:

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70. **Kobylarz EJ**, Rosenberg MJ. Comparison of pupillography with clinical relative afferent pupillary defects. North American Neuro-Ophthalmology Society (NANOS), Durango, CO, 2/94. #
71. **Kobylarz EJ**, Rosenberg MJ. Comparison of pupillography timing paradigms in relative afferent pupillary defects. Army Medical Department (AMEDD) Neurology Society, Tacoma, WA, 10/93. #
72. **Kobylarz EJ**, Sinoff SE. Effects of unilateral retinal bleach on pupil size in normal humans. American Academy of Neurology, New York, NY, Neurology 1993; 43(4):A219-220, 4/93. #
73. Sinoff SE, **Kobylarz EJ**. Pupil constriction due to retinal bleach. North American Neuro-Ophthalmology Society (NANOS), Big Sky, Montana, 2/93. #

74. **Kobylarz EJ**, Jabbari B. Dystonia in complex partial seizures. Army Medical Department (AMEDD) Neurology Society, San Antonio, TX, 11/92. #

Presented at International Meetings :

75. **Kobylarz EJ**. Advances in Intraoperative Neurophysiological Monitoring. Symposium presentation at the Eastern Association of Electroencephalographers Annual Meeting, Burlington, VT, 2/23, Clinical Neurophysiology (pending). #
76. **Kobylarz EJ**. The answer is in the electricity: EEG and Epilepsy. Platform presentation at the Eastern Association of Electroencephalographers Annual Meeting, Burlington, VT, 2/23, Clinical Neurophysiology (pending). #
77. Moncrief GG, Aita SL, Lee J, Jacobson B, Thomas GP, Roth RM, Andrew AS, Bujarski KA, Thadani V, **Kobylarz EJ**, Guerin SJ, Roberts DW, Jobst BC. Prediction of Seizure Outcome with Presurgical IAT, MRI, and PET in Patients with Temporal Lobe Epilepsy Undergoing Surgery. International Neuropsychological Society, San Diego, CA 2/23. J International Neuropsychological Society. 2023 Nov; 29(s1):31-32. DOI: 10.1017/S1355617723001145 #
78. Richards H, Everitt A, Song Y, **Kobylarz EJ**, Lukovits TG, Rojas-Soto DM, Halter RJ, Murphy EK. Initial Results in a hdEEG/EIT Clinical Study on Strokes, International Conference of Bioelectromagnetism, Electrical Bioimpedance, and Electrical Impedance Tomography, Seoul, Korea, 1/22. International Journal of Bioelectromagnetism, Jan 2022; Suppl 24:290-293. #
79. Pasquini L, Peck K, Tao A, Del Ferraro G, Correa D, Jenabi M, **Kobylarz E**, Brennan C, Tabar V, Holodny A. Pilot Study on Longitudinal Evaluation of Brain Plasticity in Low-Grade Gliomas: Graph Theory Unravels Dynamics of Language Reorganization on Post-surgical fMRI. European Congress of Radiology, 3/22, Vienna, Austria. #
80. Kobylarz TJ, **Kobylarz EJ**. A potential means to circumvent a neural network achievement impasse. Platform presentation at the Eastern Association of Electroencephalographers Annual Meeting, Virtual due to COVID pandemic, 2/22, Clinical Neurophysiology (pending). #
81. Murphy EK, Everitt A, Song Y, **Kobylarz EJ**, Halter RJ. Combined hdEEG and EIT for stroke applications. EIT 2021 - 21st International Conference on Biomedical Applications of Electrical Tomography, Remote due to COVID pandemic, 6/21.
82. Kobylarz TJA, **Kobylarz EJ**. A general nonlinear neuron model. Platform presentation at the Eastern Association of Electroencephalographers Annual Meeting, Lebanon, NH, 2/20, Clinical Neurophys. 2021 Sep;132(9):e1. <https://doi.org/10.1016/j.clinph.2021.03.026> #
83. Song Y, Hartsein KC, Hellman A, Tse PU, Bujarski KA, **Kobylarz EJ**, Thadani VM, Thomas Jr. GP, Jobst BC. A new platform for human brain functional mapping in epilepsy patients. 10th International Epilepsy Colloquium, Miami, FL, 6/17. #
84. Darcey T, **Kobylarz E**, Bujarski K, Thadani V, Jobst B, Krauss P, Roberts D. Motor mapping using high-frequency cortical stimulation and EMG pickup. European Congress on Clinical Neurophysiology, Brno, Czech Republic, 10/15. Clinical Neurophysiology 2016, Vol 127(3), ID 143, e102. #

85. **Kobylarz EJ**, Rydjeski S, Morse RP. Polarized and lens color effects on photoparoxysmal EEG response. Platform presentation at the Eastern Association of Electroencephalographers Annual Meeting, New York, NY, 2/15, Clinical Neurophysiology 2016, Vol 127(4), e160-1. #
86. **Kobylarz EJ**, Magruder CD, Eaton B. Comorbidity of mental disorders with diseases of the nervous system and sense organs or musculoskeletal system and connective tissue in the U.S. military Persian Gulf War veterans. 14th World Congress on Psychosomatic Medicine, Cairns, Australia, 9/97 #
87. **Kobylarz EJ**, Daubenspeck JA. Immediate diaphragmatic electromyogram responses to imperceptible mechanical loads in conscious humans. American Physiological Society (APS), Montreal, Quebec, Canada , 10/88. #

B. Non-peer-reviewed publications in print or other media

Original articles:

Not applicable.

Reviews:

Kobylarz EJ, Recent advances in neuro-ophthalmology (lecture). Highlights from the Northern New England Neurological Society Annual Meeting (10/17), Audio-Digest Neurology, Vol. 09, Issue 04, Feb. 21, 2018. #

Book chapters:

Not applicable.

Letters to the editor:

Not applicable.

Abstracts:

Not applicable.

LANGUAGE SKILLS: Fluent in Spanish and German (spoken and written)

MILITARY TRAINING AND SERVICE:

6/83-7/01 U.S. Army Medical Corps (Reserve and Active Duty Service) - Achieved rank of Lieutenant Colonel

- 8/98-7/01 Active Duty Member and PROFIS Officer for NATO Forces, European Regional Medical Command, Special Medical Augmentation Response Team (SMART) Deployable Telemedicine Service, Landstuhl, Germany
- 6/84-8/84 U.S. Army Medical Department (AMEDD) Officer Basic Course, Fort Meade, MD
- 12/91 U.S. Military Combat Casualty Care Course (C4), Fort Sam Houston, San Antonio, TX
- 3/97 Force XXI ("Electronic Battlefield") Military Training Exercise, Forward Medical Support Battalion, 1st Cavalry Division, National (U.S. Army) Training Center, Fort Irwin, CA
- 1/98-3/98 U.S. Army Medical Department (AMEDD) Officer Advanced Course, Fort Sam Houston, San Antonio, TX

XX. Personal Statement:

Please highlight in ~1-3 pages those accomplishments that best define your contributions to the academic mission of Geisel. Include your educational, clinical and research activities, as well as your goals. Use this space to describe activities that may benefit from a more substantive description than the entries listed in your CV.

Having undergone education and training in neurology and biomedical engineering, and subsequently completing fellowships in clinical neurophysiology, epilepsy and neuro-ophthalmology provides me with a unique and versatile background for the academic medical realm. My research and clinical interests are related to my translational academic qualifications. Specifically, I am interested in the application of engineering methods and techniques, such as quantitative analyses of neurophysiologic signals, as well as the development and utilization of medical devices to study brain function, as well as to treat brain and other neurologic diseases. I have participated in a broad range of research projects to include the quantitative analyses of neurophysiologic signals from patients with epilepsy and brain injuries, multiple medical device trials for the treatment of refractory epilepsy and disorders of consciousness, as well as the development and testing of a wireless microchip to be implanted in the brain and peripheral nervous system, a realistic EEG simulator and an EEG-NIRS (Near Infrared Spectroscopy) cap that have been utilized in a number of other research projects. More recently, we have been developing and testing a seizure detection device which utilizes non-cerebral physiologic sensors. Our objective is to more accurately detect and quantify epileptic seizures and non-epileptic spells in the outpatient setting. This type of device could also be utilized in a number of other neurologic subspecialties, such as movement disorders and stroke. Another recent engineering research collaboration in which I am currently participating involves the utilization of novel neurophysiologic and neuroimaging techniques, e.g, high-density EEG and electrical impedance tomography to perform source localization analyses intraoperatively and for the structural and functional assessment of a variety of neurologic diseases, such as stroke.

My clinical experience and training, and also technical educational background make me well suited to collaborate with both Thayer and Geisel colleagues since I can serve a bridging role between the engineering and neuroscience disciplines for such translational research. Since joining the Geisel and Thayer faculty, with my colleagues at both institutions I have submitted

multiple grants to a variety of funding organizations. Thus far, I have received support from the Hitchcock Foundation, DHMC Department of Neurology research funds (Diamond and Reeves Grants), Department of Defense, NIH National Institute of Biomedical Imaging and Bioengineering, and the medical device industry. Given the relatively lengthy list of research projects in which I have participated, it should be noted that my commitment and effort for research extends well beyond the dollar amount of FTE support I have received thus far from research grants.

My academic contributions to the Geisel School of Medicine, Thayer School of Engineering and Dartmouth College also include training and teaching. I have established a number of courses for students, residents and fellows, such as the didactic Neuro-ophthalmology Course and the Clinical Neurophysiology – Epilepsy Elective for both medical and undergraduate students. I have directed the Neurology Grand Rounds Lecture Series, as well as the Clinical Neurophysiology Fellowship and Resident Courses, the Fundamentals of Clinical Medicine and Translational Research Course and the Intraoperative Neurophysiologic Monitoring Case Review and Journal Club Conference for faculty, fellows and residents. I have also provided many course lectures at the undergraduate, medical and graduate student, as well as resident and fellow levels, e.g., Virtual Medicine and Cybercare, Neurobiology of Disease, Neurosciences I and II, Scientific Basis of Medicine, Physical Diagnosis and Quantitative Human Physiology.

In addition, I have served on multiple academic committees at Geisel and Dartmouth to include the M.D.-Ph.D. Admissions and Advisory Committee, Program in Experimental and Molecular Medicine Graduate Neuroscience Education Committee, Integrative Neuroscience at Dartmouth Program Admissions Committee, Neurology Resident and Fellow Admissions, Academic and Competency Committees, Geisel School of Medicine Faculty Council, Neurology Research Advisory Committee, Neurology Department Academic Appointments, Promotions and Titles Committee, and have also chaired the Neurology Department Scientific Review Committee. It has also been my great pleasure to serve as a faculty advisor and mentor for a number of student organizations including the Geisel Medical Student Science Scholars Group, the MD-PhD Undergraduate Summer Program, the Hippocratic Exchange at Dartmouth (HEaD, student diversity program) and the American Academy of Neurology Student Interest Group in Neurology (SIGN). In addition to a unique and productive research collaboration, my adjunct faculty appointment and collaborations with Prof. Solomon Diamond's, Prof. Laura Ray's, Prof. Ryan Halter's and Prof. Ethan Murphy's laboratories at the Thayer School of Engineering have afforded me the fantastic opportunity to serve on a number of Thayer and Dartmouth graduate student doctoral, graduate and undergraduate committees.

Under my Directorship, the Intraoperative Neurophysiologic Monitoring (IONM) Service has significantly grown, which has resulted in improved post-operative outcomes for more patients undergoing a wide variety of surgical procedures. We have successfully expanded the IONM service not only within Dartmouth-Hitchcock Medical Center, but also to our affiliated hospitals elsewhere in New Hampshire.

I have served as the Director of the Clinical Neurophysiology Fellowship Program, as well as the MD-PhD Program over the past 10 and 6 years respectively, which have been very fulfilling experiences for me. I really enjoy developing these important programs, as well as working with these excellent students and trainees as they progress in their respective academic careers. I fondly reminisce about my own time as a Geisel and Thayer student, as well as a resident and fellow at Walter Reed Medical Center and NYPH-Cornell with the superb mentors and education these institutions provided to me. I feel that in return for this, the least I can do is to provide future physicians and scientists the excellent education, training and mentorship I had the great fortune to enjoy and ultimately benefit from.

Sincerely,

A handwritten signature in black ink, reading "Erik J. Kobylarz, M.D., Ph.D." in a cursive style.

Erik J. Kobylarz, M.D., Ph.D.
Professor of Neurology, Geisel School of Medicine, Dartmouth College
Adjunct Professor, Thayer School of Engineering, Dartmouth College

Updated by: Erik J. Kobylarz, MD, Ph.D.

Date: 8 February 2024