

SUDHIR AGGARWAL, M.D., Ph.D.
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Work Experience

Neurologist, Lower Merion Neurology, PC, Paoli, PA	01/2019 – present
Attending Neurologist, Doylestown Hospital, Doylestown, PA	07/2016 – 06/2019
Attending Neurologist, Crozer-Keystone Health Network, Upland, PA	07/2016 – 07/2017
Research Scientist, University of Tennessee Health Sciences Center, Memphis, TN	08/2004 – 12/2010
Teaching Faculty, Post Graduate Institute of Med Sciences, Rohtak, India	06/2002 – 08/2004
Teaching-cum-Clinical Faculty, G N D Dental College and B D Arora Memorial Hospital, Sunam, India.	10/2000 – 06/2002

Academic Appointments

Clinical Assistant Professor (Adjunct) of Neurology, Lewis Katz School of Medicine at Temple University, Philadelphia, PA	2019 – present
Clinical Assistant Professor Drexel University College of Medicine Philadelphia, PA	2018 – present
Assistant Professor (Adjunct) Geisinger Commonwealth School of Medicine, Scranton, PA	2017 – present
Teaching Faculty Crozer Chester Medical Center, Upland, PA	2016 – 2017
Teaching Faculty, Post Graduate Institute of Med Sciences, Rohtak, India	2002 – 2004
Teaching Faculty, G N D Dental College, Sunam, India.	2000 - 2002

Education/Training

Fellowship (Vascular Neurology)	Rutgers University, New Jersey Medical School Newark, NJ	07/2015 – 06/2016
Residency (Neurology)	Hahnemann Univ. Hospital/Drexel University College of Medicine, Philadelphia, PA	07/2012 – 06/2015
Residency (Internal Medicine-Prelim.)	Mercy Catholic Medical Center, Darby, PA	07/2011 – 06/2012
Ph.D. (Biomedical Sciences)	University of Tennessee Health Sciences Center, Memphis, TN	08/2004 – 12/2010
M.B.,B.S./ M.D.	Govt. Medical College Patiala Punjab, India	08/1991 – 12/1996

Organizational/Administrative

Medical Director and CEO, Lower Merion Neurology, PC, Paoli, PA	2019-present
Member, Neuroscience Steering Committee, Main Line Health	2019-present
Member, Main Line Health System Stroke Committee	2019-present

Chief of Neurology, Doylestown Hospital, Doylestown, PA	2017-2018
Medical Director Stroke Services, Doylestown Hospital, Doylestown, PA	2017-2019
Chairman Stroke Task Force, Doylestown Hospital, Doylestown, PA	2017-2019
Member, Critical Care Committee, Doylestown Hospital, Doylestown, PA	2017-2019
Member, Medical Executive Committee, New Jersey Medical School, Rutgers University, Newark, NJ	2015-16
Member, Institutional Review Board (IRB), New Jersey Medical School, Rutgers University, Newark, NJ	2015-present
Member BAT QI Committee, Comprehensive Stroke Center, University Hospital, Newark, NJ	2015-16
Member Stroke PI Team, Comprehensive Stroke Center, University Hospital, Newark, NJ	2015-16
Member GME Committee Mercy Catholic Medical Center Darby, PA	2011-12
Class Representative (PGY-1) Internal Medicine Residency MCMC Darby, PA	2011-12

Licensure

PA State Medical License

Board Certification

Board Certified in Neurology

Additional certification in Vascular Neurology

Ph.D. Dissertation

‘**Role of MAP Kinase/ERK in Regulation of Epithelial Tight Junctions**’, under the mentorship of Dr. Radhakrishna Rao, Ph.D., Professor Physiology Department, University of Tennessee Health Sciences Center, Memphis, TN.

Clinical Trials

- **Principal Investigator** of Randomized Controlled Trial- Quelling of Excitotoxicity in Acute Stroke with Ketamine (QUEST-KETA); NCT03223220
- **Investigator**, Stroke Protection with Sentinel during Transcatheter Aortic Valve Replacement (PROTECTED TAVR); NCT04149535
- **Sub-investigator**, Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis Trial (CREST-2); NCT02089217

Publications

1. **Mechanical Thrombectomy for Acute Ischemic Stroke in the Cardiac Catheterization Laboratory.** Guidera, SA, Aggarwal, S, Walton, JD, Boland, D, Jackel, R, Gould, JD, Kearins, B, McGarvey, J Jr, Qi, Y, Furlong, B. JACC Cardiovasc Interv. 2020 Apr 13;13(7):884-891. PMID: 32273100
2. **Code Stroke vs Code STEMI: Greater Clinical Impact from Accelerating Door to Endovascular Reperfusion for Acute Ischemic Stroke than Acute Myocardial Infarction.** Aggarwal, S, Saver, JL. Stroke. 2018; 49: ATP33
3. **Greater Clinical Impact from Accelerating Endovascular Reperfusion for Acute Ischemic Stroke than Acute Myocardial Infarction.** Aggarwal, S, Saver, JL. Stroke. 2016; 47: A199
4. **Contrasting Effects of ERK on Tight Junction Integrity in Differentiated and**

- Undifferentiated Caco-2 Cell Monolayers.** Aggarwal, S, Suzuki, T, Taylor, WL, Bhargava, A, Rao, RK. *Biochemical Journal*. 2010 Dec 15;433(1): 51-63. PMID: 20961289
5. **Expression of Active MEK1 Destabilizes Tight Junctions (TJs) in Undifferentiated Caco-2 Cells, while it Enhances TJ Integrity in Differentiated Cells;** Aggarwal, S., Suzuki, T., Seth, A., Rao, RK.; *Gastroenterology* Vol. 134, Issue 4, Suppl. 1, Page A-35
 6. **ERK, but not p38-MAPK or JNK, Plays a Role in Epidermal Growth Factor-Mediated Protection of Tight Junctions from Acetaldehyde in Caco-2 Cell Monolayers;** Samak G, Aggarwal S, Rao RK. *American Journal of Physiology Gastrointestinal Liver Physiology*. 2011 April 7; 301: G50-59. PMID: 21474650
 7. **T403/404D Mutation of Occludin Attenuates PKC- ϵ Mediated Regulation of Epithelial Tight Junctions;** Elias, B., Aggarwal, S, Shen, L, Turner, J., Rao, RK; *Gastroenterology* Vol. 134, Issue 4, Supplement 1, Page A-118
 8. **Acute Ethanol Administration in Isolated Loops of Mouse Colon, But Not Ileum, Disrupts Tight Junctions (TJ) and Adherens Junctions (AJ) and Increases Paracellular Permeability;** Samak, G., Jain, S., Aggarwal, S, Seth, A, Rao, RK; *Gastroenterology* Vol. 136, Issue 5, Supplement 1, Page A-412
 9. **Contribution of Macrophage Secretory Products to Urovirulence of *Pseudomonas aeruginosa*;** Mittal R, Aggarwal S, Sharma S, Chhibber S, Harjai K; *FEMS Immunol Med Microbiol*. 2009 Nov.; 57(2):156-64. PMID: 19735298
 10. **Urinary Tract Infections Caused by *Pseudomonas aeruginosa*: A Minireview;** Mittal R, Aggarwal S, Sharma S, Chhibber S, Harjai K; *Journal of Infection and Public Health*. 2009 Sep; 2(3): 101-111. PMID: 20701869
 11. **Correlation between Serogroup, *in vitro* Biofilm Formation and Elaboration of Virulence Factors by Uropathogenic *Pseudomonas aeruginosa*.** Mittal, R, Sharma, S, Chhibber, S, Aggarwal, S, Gupta, V, Harjai, K; *FEMS Immunol Med Microbiol*. 2010 Mar; 58(2): 237-243. PMID: 19930457

Oral Presentations

1. **Greater Clinical Impact from Accelerating Endovascular Reperfusion for Acute Ischemic Stroke than Acute Myocardial Infarction;** Aggarwal, S, Saver, JL; Presented at the 2016 International Stroke Conference in Los Angeles, CA.
2. **Quantitative Assessment of Platelet Function in Acute Ischemic Stroke Patients;** Aggarwal, S, Singh, P; presented at the 15th Annual Residents Research Day (2016) at the Rutgers University, New Jersey Medical School, Newark, NJ
3. **Scientific Rationale for the Inclusion and Exclusion Criteria for Intravenous Alteplase in Acute Ischemic Stroke;** by Bart M. Demaerschalk et al; Presented at the 'Chief of Service' Lecture at Rutgers University, New Jersey Medical School, Newark, NJ, Feb. 2016
4. **Role of Continuous-EEG Monitoring in Critically Ill Patients;** Aggarwal, S, Pillai, J; presented at the 2014 and 2015 Residents Research Day at the Drexel University/ Hahnemann University Hospital Philadelphia, PA.
5. **58 years old male with newly diagnosed AVM: A case report.** Aggarwal, S. presented at the 2013 Residents Research Day at the Drexel University/Hahnemann University Hospital Philadelphia, PA.
6. **Expression of Active MEK1 Destabilizes Tight Junctions (TJs) in Undifferentiated Caco-2 Cells, while it Enhances TJ Integrity in Differentiated Cells;** Aggarwal, S, Suzuki, T, Seth, A, Rao, RK; Presented at the 2008 Digestive Diseases Week (DDW) Meeting at San Diego, CA.
7. **T403/404D Mutation of Occludin Attenuates PKC- ϵ Mediated Regulation of Epithelial Tight Junctions;** Elias, B, Aggarwal, S, Shen, L, Turner, J, Rao, RK; presented at the 2008 Digestive Diseases Week (DDW) at San Diego, CA.

Poster Presentations

1. **Code Stroke vs Code STEMI: Greater Clinical Impact from Accelerating Door to Endovascular Reperfusion for Acute Ischemic Stroke than Acute Myocardial Infarction;** Aggarwal, S, Saver, JL; Presented at the 2018 International Stroke Conference in Los Angeles, CA.
2. **Continuous EEG Monitoring is an Important Tool in Managing Critically Ill Patients in Intensive Care Units;** Aggarwal, S, Pillai, J, at the 2015 Annual Meeting of the American Academy of Neurology (AAN) at Washington, DC.
3. **ERK1/2 delays the Assembly of Tight Junction (TJ) in Undifferentiated Caco-2 Cell Monolayers, While it Mediates the EGF-Induced Protection of TJ from Oxidative Stress in Differentiated Cell Monolayers;** Aggarwal, S., Bhargava, A., Rao, R.K.; presented at the Digestive Diseases Week (DDW) 2007. This abstract was awarded the 'Student Abstract Prize' given to 10 best abstracts at the conference.
4. **Acute Ethanol Administration in Isolated Loops of Mouse Colon, But Not Ileum, Disrupts Tight Junctions (TJ) and Adherens Junctions (AJ) and Increases Paracellular Permeability;** Samak, G, Jain, S, Aggarwal, S, Seth, A, Rao, RK; Presented at the Digestive Diseases Week (DDW) 2009.

Invited Lectures/Media Appearances

Stroke Syndromes and Extended Window Treatment Options in Acute Stroke- at Central Bucks EMS Doylestown, PA	2019
In-service Training in Cerebral Vasculature and Stroke- for Nursing Staff at Doylestown Hospital, Doylestown, PA	2019
Grand Rounds on Stroke Update- Department of Family Medicine Lankenau Medical Center Wynnewood, PA	2018
Stroke Basics and Prevention- under the 'Walk with a Doc' program by Doylestown Health, Doylestown, PA	2017
Neurologic Conditions Among the Elderly, at Crozer Chester Medical Center Trauma Symposium	2017
Panelist on the TV Show ' Health Matters Stroke ', Central Bucks School District	2017
Emergency Management of Acute Stroke; EMS Perspective; at Doylestown Hospital, Doylestown, PA	2017
'Neurologic Assessment' Stroke Education Series at the NJ Comprehensive Stroke Center at University Hospital, Newark, NJ	2016
Neurosonology (Transcranial Doppler and Carotid Doppler Ultrasound); Presented at the 'Chief of Service' Lecture at Rutgers University, New Jersey Medical School, Newark, NJ	2015
Invited panelist on a TV program ' <i>Khaas Mulaquat</i> ' (English meaning- 'A Special Discussion') about Neurological health issues , on Times TV,	2014
Lectures on Neuro-ophthalmology to residents and medical students at Govt. Medical College, Patiala, India	2014
'Congenital Malformations in Children- Causes and Suggestions' on All India Radio, Rohtak, India	2003

Editorial Board Member

Neurological Disorders and Stroke- A Global Access Publication

Invited Reviewer

1. Stroke- AHA/ASA Journal
2. Journal of Infection and Public Health – An Elsevier Science Publication
3. American Journal of Biomedical Science (AJBMS)
4. Cardiovascular and Hematological Disorders- Drug Targets

Awards and Honors

Educator, Stroke Education Series at the NJ Comprehensive Stroke Center at University Hospital, Newark, NJ	2016
University of Tennessee College of Graduate Health Sciences Travel Award	2008
‘Grand Award Judge’ at the Intel International Science and Engineering Fair (ISEF), Indianapolis	2006
Chief Editor Memoirs (1991-95) Govt. Medical College Patiala, India	1995
Student Editor GOMCO (The College Magazine) Govt. Medical College, Patiala, India.	1995
Rotary Youth Leadership Award	1990

Professional and Social Affiliations

1. American Heart Association/American Stroke Association
2. American Academy of Neurology