

PROFILE

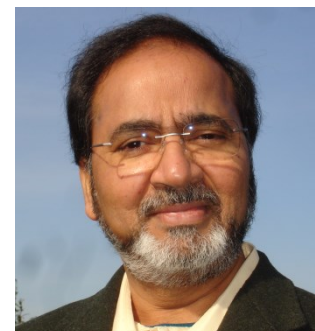
Name Dr. G. DAYANITHI

Designation Professor

Unit Research and Development Wing

Affiliating Institution Sree Balaji Medical College and Hospital (SBMCH) - BIHER, Chennai-600 044 Tamil Nadu, India.

E-mail govindan.dayanithi@umontpellier.fr



Total Publications : WOS # 167

Details	Google Scholar	Scopus	Web of Science
Total citations	6275	4738	4923
h-index	44	38	38
i10-index	102		

Résumé

Govindan Dayanithi, born 1st July 1956, French Citizen, former citizen of India and holding Overseas Citizen of India ID, was educated in India (University of Madras; 1972-1983) as a Biologist, Zoologist, Parasitologist, Comparative Anatomy & Physiologist and Crustacean Endocrinologist with B.Sc., M.Sc (Special Zoology); and Ph.D Degree in Zoology. He was trained and served to the Ministry of Defense-India at NCC: 10 TNBN-Tamil Nadu as "Senior Under Officer" between 1973 and 1976. He came to Europe in 1983 as a French Ministry of Education Post-Doctoral Fellow (CROUS), followed by a fellow of French Medical Foundation (FRM 1985) and as a fellow of the Alexander von Humboldt Stiftung (Germany, 1989-1990; 2002). In addition, he was appointed as "Chargé de Recherche" at the Faculty of Medicine (Centre de Neurochimie, 1987)-University of Strasbourg and Senior Research Assistant at the Department of Anatomy-University of Oxford (1987-1989) before being permanently employed by the French Ministry of Research (CNRS) as "Chargé de Recherche" (1990) and then as "Directeur de Recherche" (since 1997). In the following years, he was awarded the Japanese Society for Promotion of Science Invitation Fellowship-JSPS (2004, 2008, 2010, 2011, 2014) as well as a visiting scientist to conduct research and teaching activities in several Japanese universities and research institutions (UOEH School of Medicine-Kitakyushu; Jichii Medical School; School of Vet. Medicine-Tottori University). Simultaneously, he has been collaborating with British (Oxford, Cambridge, Cardiff, Edinburgh, Manchester, Brimingham) and US research institutions (Worster Foundation, UMASS Medical School-NIH. He has been teaching at the university of Madras and continuing to dedicate to his major commitments to fulfill his Ph.D program (1978-1982); and followed his teaching and research activities in several institutions in the Europe (Oxford, Ulm, Bordeaux, Montpellier, Marseille, Rouen, Strasbourg, Praha, Hradec Kralove, Usti nad Labum, Plzen). He is a multilingual person (Tamil, Telugu, English, French, German, Polish, Japanese, Czech with notion in Hindi and Malayalam, Ukrenien..) who lived personally and scientifically in India, France, Germany, Belgium, Hungary, Poland, Czech Republic, Italy, UK, USA and Japan. He was then appointed as 'Charge de Mission Europeans et Internationals' at the CNRS Delegation office in Montpellier (1998-2002); followed by a long-term scientific mission at the European Commission (Brussels; 2002-2006). He was authorized to leave on Diplomatic Scientific Mission ('mise-a-disposition') at the Institute of Experimental Medicine of the Academy of

Sciences of the Czech Republic, an EU Centre of Excellence in Prague (2008-2011). After completing this mission, he was then permitted to continue his collaborative research and teaching activities between France and Czech Republic with an appointment as the Head of the Department of Molecular Neurophysiology-AS CR. In consequence, he appertained to the duties and privileges of the Academy of the Sciences of the Czech Republic and has been awarded, for the First time for a French Scientist, the Medal in November 2016 for his scientific contributions to the research in 'Experimental Medicine'. He trained over top 20 PhD students, 10 post-Docs, several visiting scientists from all over the world, several High School, Bachelor and Master students came from several countries in the world to take training in research in his laboratory. Further, he is currently serving as an Editorial Board member/Associate Editor/Section Editor of the Cell Calcium, International Journal of Cell Biology, Frontiers in Cell and Developmental Biology/Stem Cell Research, Frontiers in Endocrinology, Frontiers in Bioengineering and Biotechnology, Frontiers in Genetics, Frontiers in Bioscience-Scholar, International Journal of Molecular Medicine, Physiologia, and Journal of Cellular and Molecular Medicine. He is a consistent and constant expert Editor/Reviewer for many journals and is a multi-disciplinary expert in various EU research programs who has published more than 150 papers in various peer-reviewed journals. He prepared two Special Issues as principal Guest Editor for Cell Calcium in 2012 and 2016. He published two Books (one with PhD student, 2012; and other as Co-Editor on "Neurosecretion: Secretary Mechanisms-publisher: Springer Nature in April 2020). Since April 2012, he has been affiliated with INSERM Unit 710 & 1198, University of Montpellier and Ecole Pratique des Hautes Etudes-Sorbonne-Paris and developing a new research line on the 'Cerebral Aging & Neurodegenerative Diseases'. Since 2016, he has been appointed as Professor at Sree Balaji Medical College and Hospital, Research and Development Wing, Chennai-India. His major research focuses on: i) the physiology of calcium signalling in excitable and non-excitable cells ii) stimulus-secretion-coupling at the level of neurohypophysial system & Neurosecretion, iii) physiopathology of central and peripheral vasopressin and oxytocin; iii) exocytosis, iv) calcium signalling mechanisms/homeostasis in central and peripheral nervous system tissues and v) signalling mechanisms in human embryonic stem cells of different origin and, vi) pathophysiology of calcium signalling in stem cells (sk-DMSC & bone marrow) from non-human primate animal model (*Microcebus murinus*) for aging, Alzheimer's and Parkinson disease. Since 2019, he has been appointed as Professor at Research & Development Wing at the "Sree Balaji Medical College and Hospital to establish a Research Center of Excellence. In this Institution, he is developing new area of research on therapeutic approaches on Bacteriophages and biosensor array electrode system for detecting the bacterial pathogen. Administratively, he was holding many prestigious positions: i) Research Director in several French Institutions, ii) French Expert at EU Commission, iii) Chairman of EU expert panel in Neurosciences, iv) Head of the Laboratory of Molecular Signaling at EU center of Excellence, v) HOD of the Dept of Molecular Neurophysiology-Czech Academy of Sciences, vi) French Scientific Expert at EU Center of Excellence in Prague, vii) "Officer for European and International Affairs" at the French Ministry Research and Higher Education viii) EU and Czech Projects' Head and Principal Investigator. Finally, till date, he has been managing several research programs with EU/French, Austria, Germany, Czech, UK, Hungary, Italy, Poland, Japan, USA and India.

Curriculum vitae

Civil status

Family name	DAYANITHI
Given name	Govindan
Date & Place of birth	1 st July 1956 at Ussoor (India)
Marital status	Married
Sex	Male
Nationality	French (former Indian Citizen with permanent Overseas Citizen of India)

Home Address Home in India

21 Rue Bertrand de Born, F-34080 Montpellier-France
42 Mariamman Kovil Street, Thellurpalayam, Ussoor 632105-TamilNadu-IN

Current positions

CNRS Research Director & Professor
Molecular Mechanisms in Neurodegenerative Diseases Laboratory

University of Montpellier, EPHE and INSERM U 1198
 CC 105 ; Place Eugène Bataillon
 F-34095 Montpellier Cedex 5; France
 GSM. +33 766 12 04 08

And

Professor, Research and Development Wing
 Sree Balaji Medical College and Hospital
 Bharath Institute of Higher Education and Research
 Chromepet, Chennai 600 044, India

e.mail: govindan.dayanithi@umontpellier.fr

web: <http://www.mmdn.univ-montp2.fr>

International IDs to have access to my personal and scientific data

[Orchid: https://orcid.org/0000-0002-1009-7809](https://orcid.org/0000-0002-1009-7809)

[Google Schiolar ID:](https://scholar.google.com/citations?hl=fr&user=BCSD34wAAAAJ)

<https://scholar.google.com/citations?hl=fr&user=BCSD34wAAAAJ>

[WOS: http://apps.webofknowledge.com.proxy.insermbiblio.inist.fr/UA](http://apps.webofknowledge.com.proxy.insermbiblio.inist.fr/UA)

[Scopus Author ID: 7006743485](#)

[ResearcherID: H-3131-2014](#)

[ResearcherID: F-6068-2016](#)

[Researchgate:](#)

https://www.researchgate.net/profile/Govindan_Dayanithi

[Loop profile: 20816](#)

Education

May 1972	Secondary School Leaving Certificate (SSLC) (optinal: Biology) Govt-high school, Ussoor-India
June 1973	Pre-University Course (PUC) (Natural Science, Physics and Chemistry) Voorhees College; University of Madras, India
September 1976	Bachelor of Science (B.Sc.) (Zoology, Botany and Chemistry) Abdul Hakeem College, University of Madras, India
October 1978	Master of Science (M.Sc.) (Zoology, Optional: Parasitology) Department of Zoology, University of Madras, India
May 1979	Diploma in German Language, University of Madras, India

December 1982	Doctor of Philosophy (Ph.D.) in Zoology (University of Madras, India)
August 1983	Diploma in French Language (French Embassy in New Delhi)

Job history

- 1) Jan 1987 - Oct 1987: (Strasbourg-France) "Chargé de Recherche" at the University of Louis Pasteur Institute of Biological Chemistry, Faculty of Medicine and Centre de Neurochimie-France
- 2) Oct 1987 - Sept 1989: (Oxford-UK) "Senior Research Assistant", Department of Human Anatomy, University of Oxford-UK
- 3) Mar 1989 - Feb 1990: (N.I.H.-Bethesda-USA) Exchange Scientist J1-Status for Research in Neurobiology-USA
- 4) Oct 1989: (CNRS-France) permanently appointed as "Chercheur au CNRS"- Ministry of Research-France
- 5) Sept 1989 - Aug 1991: (Strasbourg-France) "Charge de Recherche-1st class" UPR 6511, Centre de Neurochimie du CNRS-France
- 6) Sept 1989 - Dec 1995: "Charge de Recherche-1st class" URA 1197, University of Montpellier II-France
- 7) Jan 1996 - Sept 1997: "Charge de Recherche-1st class" UPR 9055, CCIPE-Montpellier-France
- 8) October 1997: "Directeur de Recherche", UPR 9055, CCIPE-Montpellier-France
- 9) July 1999 - Sept 2002: "Officer for European & International Affairs" CNRS-Ministry of Research-France
- 10) Jan 2001 - Dec 2002: "Directeur de Recherche" U432 INSERM, University of Montpellier II-France
- 11) January 2003 - August 2008 : "Directeur de Recherche" U583 INSERM, Hôpital St. Eloi, Montpellier-France
- 12) March 2006 - August 2008: French National Expert at EU Commission and Research Director at INSERM U 583, Hôpital St. Eloi, Montpellier-France
- 13) Sept 2008 - Institute of Biological Sciences, Section 25-CNRS-Paris-France
- 14) Sept 2008 - August 2011: "CNRS Research Director and Professor" Affiliation with Czech Academy of Sciences; Institute of Experimental Medicine, Prague-CZ
- 15) Sept 2011 - April 2018: Head of the Dept of Molecular Neurophysiology; Affiliation with Czech Academy of Sciences; Institute of Experimental Medicine, Prague-CZ
- 16) March 2016 - September 2019: Professor at the Department of Pharmacology & Toxicology, Faculty of Medicine, Charles University in Plzen, Czech Republic-CZ
- 17) September 2016 - todate: Professor, Research and Development Wing, Sri Balaji Medical College and Hospital, Chennai-India
- 18) January 2020 – todate: Research Director, Center for Neuroscience, SRM University of Science and Technology, Chennai-India

Selected nominations in French/EU administration (Some Confidential documents could be disclosed upon special request from authorities)

1998-2008: French national expert at the European commission and “Member of the Expert Panel” at the European Commission; FP5- Bruxelles
 1999-2002: “Officer-in-Charge for European & International Affairs” and Research Director-CNRS
 2002-2008: CNRS consultant to Newly Associated EU States at EU commission (NAS)
 1998-2003: CNRS consultant/expert to EU research programs and financial advisor
 2006-2008: “French National Expert for Newly Associated States”; European Commission
 2008-2011: “CNRS Scientist on Mission” EU Center of Excellence-Prague
 2008-2013: FP7-EU Expert panel member
 2011-2014: French-EU Chief Scientist on Mission
 2014-2016: CNRS service Mission in Czech Republic, Japan, USA, UK, EU commission
 2012-2018: Head: Dept. Molecular Neurophysiology, Institute of Experimental Medicine, Czech Academy of Sciences, Prague-Czech Republic

Awards / Fellowships / Distinctions / Honors

2nd November 2015: Honored with Medal: Institute of Experimental Medicine of the Czech Academy of Sciences and EU Centre of Excellence-Prague.

2016-2017: (Japan) Japanese Society for Promotion of Science (JSPS) Invitation Professorship
 2012 & 2015: (Japan) Japanese Society for Promotion of Science (JSPS) Invitation Professorship
 2010 & 2011: (Japan) Japanese Society for Promotion of Science (JSPS) Invitation Professorship
 2010 - 2013: (India) University of Madras “Visiting Professorship”- Department of Life Sciences
 2004 & 2008: (Japan) Japanese Society for Promotion of Science (JSPS) Invitation Professorship
 2007 - 2012: (Worcester-USA) “Scientific consultant and Visiting Scientist”, Collaborative research program with Worcester Foundation for Biomedical research and the University of Massachusetts Medical Centre-USA
 1997 - 2006: (Worcester-USA) NIH-Collaborative research program with the University of Massachusetts Medical Centre-USA
 1991 - 1993: (Ulm-Germany) “Gastwissenschaftler im Theoretische medizin”, Abteilung Anatomie und Zellbiologie Universität Ulm
 1989 - 1990: (Ulm-Germany) Fellow of “Alexander von Humboldt Stiftung”, Abteilung Anatomie und Zellbiologie, Universität Ulm
 1985 - 1986: (Bordeaux-France). Fellow of “Fondation pour la Recherche Médicale (FRM)”
 1983 - 1985: (Bordeaux-France) Fellow of “Ministry of National Education” (CROUS)
 1980 - 1983: (Madras-India) Fellow of Indian Council of Scientific and Industrial Research, Department of Zoology, University of Madras
 1978 - 1980: (Madras-India) Fellow of Indian Council of Medical Research, Department of Zoology, University of Madras

Society memberships

1. Alexander von Humboldt-Stiftung (Germany and France)
2. British Neuroendocrine Group (U.K)
3. The Japanese Society for Promotion of Science (Japan & France)
4. The Physiological Society (U.K)
5. Society for Neuroscience (USA)
6. The Endocrine Society (USA)
7. The Society for Endocrinology (UK)
8. Czech Neuroscience Society (Czech Republic)

Editorial Board

Current activities:

1. Frontiers in Cell & Developmental Biology (Stem Cell Research) (Associate Editor); since 2010
<https://www.frontiersin.org/journals/cell-and-developmental-biology/sections/stem-cell-research#editorial-board>
2. Frontiers in Genetics (Associate Editor); since 2021
<https://www.frontiersin.org/journals/genetics#editorial-board>
3. Frontiers in Endocrinology (Associate Editor in Pituitary Endocrinology); since January 2022
<https://www.frontiersin.org/journals/endocrinology#editorial-board>
4. Frontiers in Bioscience-Scholar (Editorial Board); since 2021
https://www.imrpess.com/journal/FBS/about/editorial_board
5. Cell Calcium (Editorial Board and Special Issue Editor); since 2005
<https://www.sciencedirect.com/journal/cell-calcium/about/editorial-board>
6. International Journal of Cell Biology (Academic Editor); since 2010
<https://www.hindawi.com/journals/ijcb/editors/>
7. International Journal of Molecular Medicine (Section Board for Molecular Biology) since 2020.
https://www.mdpi.com/journal/ijms/sectioneditors/Molecular_Biology
8. Journal of Cellular and Molecular Medicine (Associate Editor); since 2021
<https://onlinelibrary.wiley.com/page/journal/15824934/homepage/editorialboard.html>
9. Physiologia (Editorial Board) since 2021
<https://www.mdpi.com/journal/physiologia/editors>
10. Stem Cell Research and Therapeutics (Editorial Board); since 2021
<https://www.scitcentral.com/editorboard/22>

Earlier activities:

11. Journal of Neuroendocrinology (9 years; completed the term)
12. Journal of Endocrinology (3 years; completed the term)
13. The Scientific WORLD JOURNAL (5 years)
14. The IIOAB Journal (8 years)

Selected nominations in French/EU administration

“Member of the Expert Panel” at the European Commission- Bruxelles

1. Ref : QoL Z13000L00881-ES; 09/11/00 - 18/11/00
2. Ref : QoL Z13000M2190-ES; 21/04/01 - 30/04/01 Ref : QoL Z13000M2192-ES; 05/05/01 - 15/05/01
3. Ref : QoL Z13000M0191-ES; 12/05/01 - 22/05/01 Ref : QoL Z13000M02499-ES; 10/03/02 - 16/03/02
4. Ref : QoL Z13000M03654-ES; 10/04/03 - 12/04/03
5. 1998-2008: French national expert at the European commission
6. 1999-2002: “Officer-in-Charge for European & International Affairs” 2002-2008: CNRS Consultant to Newly Associated EU States (NAS)
7. 1998- To date: CNRS consultant/expert to EU research programs and financial advisor
8. 2006-2008: “French National Expert for newly associated states”; European Commission
9. 2008- To date: “CNRS Scientist on CNRS Mission at the IEM-AS CR, EU Centre of Excellence
10. 2010-2014: FP7-EU Expert panel (ID# EX2006C105170)

The list is overlong...

Scientific Consultant:

- i) NEUREX/Elan Pharmaceutical corporation, Menlo Park, California, U.S.A.
- ii) Carl ZEISS, Oberkochen, Germany; Actively involved to develop "Fast Fluorescence Photometry" to measure the intracellular free calcium concentrations using Fura-2 microspectrofluorimetry (1989-1990)
- iii) National Institutes of Health, U.S.A. Scientific Consultant for the research project with University of Massachusetts Medical School, USA).
- iv) The Wellcome Trust-UK. Evaluator of Research Proposals in Neuroscience
- v) Biotechnology and biological Sciences Research Council (BBSRC). Evaluator of Research Proposals
- vi) National Science Foundation-USA. Evaluator of Research Proposals in Neuroscience

Research themes developed

- 1) Stimulus-secretion-coupling
- 2) Molecular physiology of calcium signalling in the CNS and PNS neurons
- 4) The physiology of vasopressin and oxytocin signalling in nociception, pregnancy and lactation
- 5) The physiology of calcium signalling in human embryonic stem cell-derived neuronal precursors
- 6) Calcium imaging and neuron-glia interactions in neurodegenerative diseases (ALS and AD)
- 7) Pathophysiology of calcium signalling in stem cells (sk-DMSC & bone marrow) from non-human primate animal model (*Microcebus murinus*) for Alzheimer's and Parkinson disease.

Foreign visitors who worked/trained/collaborated in my department (on Sabbatical leave/guest lecture visitors/post docs/Ph.d Students):

- 1) Prof. Alex Verkhratsky-UK (5 times/yr): (Collaboration)
- 2) Prof. Jose R Lemos-USA (1-2 times/yr) (Collaboration)
- 3) Prof. Izumi Shibuya-Japan (3 time/yr) (collaboration)
- 4) Prof. Yoichi Ueta-Japan (2 time/yr) (Collaboration)

- 5) Prof. Chen Chen –Australia (sabbatical leave: 6 months: Jan-June 2018): (collaboration)
- 6) Ass. Prof. Naoki Kitamura-Japan (2 times/year): Collaboration)
- 7) Prof. R. Pallianiappan- Dean-Faculty of Med-Chennai-India (2 times/year): project consultant
- 8) Dr. R. Subbraju-Harward Medical University (1 time/year): Project consultant on Endocrine-pathology
- 9) Dr. S. Chenchal Rao (MIT-Harward and Univ-Nashville on software developer) (2 times/year): Project consultant on mathematical modelling and statistical consultant
- 10) Dr. Tomohiko Kayano (PhD student and post –doc)
- 11) Prof. Hiroshi Yamashita (Visiting Professor)
- 12) Dr. Cedric Viero- Research & Dev officer-Servier-France (former student (INM-MPL; post-doc, visiting scientist, collaborator and now consultant..

Key notes in Major Research and Interests

- i) Fundamental scientist, Biologist, Zoologist, Botanist, Chemists and Bio-mathematics
- ii) Role for Calcium ions in Physiology and pathology iii) Stimulus-secretion coupling in the pituitary
- iv) Physiology of Hypothalamo-neurohypophysial system & Neurohypophysial hormones
- v) Intracellular calcium signalling in the excitable and non-excitable cells
- vi) Receptor-coupled second messenger systems
- vii) Physiological role for intracellular calcium compartments
- viii) Autoregulatory mechanisms in the supraoptic nucleus neurones
- ix) Role of ryanodine receptors in “Calpainopathy”
- x) Neuropharmacology
- xi) Differential role of ryanodine and IP3 receptors during development in the DRG and motoneurones
- xii) Drug research, Drug addiction, Opioids, Alcoholism
- xiii) Research in genetically modified animal models
- xiv) Neuropeptides, hormone research, development, aging
- xv) Calcium signalling in human embryonic stem cells

(Key words: Natural Sciences - CNS/PNS, HPA, Hypothalamus, Animal Physiology, Parasitology, Stem cells, Pharmacotherapy, Physiopathology, Cell Calcium, Stimulus-Secretion-Coupling, Pain and nociception, Use of transgenic for vasopressin and oxytocin, Endocrinology, Neuroendocrinology, Neurophysiology, Neurohormones, Neurotransmitters, Brain injury and repair, Drug addiction and drug development, Alcoholism, Memory disorders, Social disorders, Imaging technology, Bioengineering & Biotechnology, Stem cell Research)

Magistrate lectures (limited list only)

2006-2007, University of Montpellier II; UOEH School of medicine, Jichi Medical school, Kyoto Medical school, University of Torroni-Japan; UMASS Medical school- Boston; University of Madras-India

2008 - March, 26th; Institute of Experimental Medicine, Academy of Sciences of the Czech Republic, Prague (Physiology of hypothalamo-neurohypophysial system: role for calcium).

2008- September, 22nd ; IFR Jean Roche de Neurosciences, secteur Nord de la Faculté de Médecine, 51 bd. Pierre Dramard Marseille (Role of calcium in the physiology of CNS neurons)

2009- March, 11th; University of Madras, Life Sciences Department-Madras-India (Molecular physiology of calcium signalling in the CNS supraoptic nucleus neurones and terminals of the hypothalamus)

2009: Japanese Society for Promotion of Science; teaching & seminar series in Japan

a) Title of the seminar on 20th April 2009: "Calcium clearance mechanisms and somatodendritic AVP release in the rat supraoptic nucleus neurons vs nerve terminals": Department of Anatomy and Neurobiology, Kyoto Prefectural University of Medicine, Kawaramachi-Hirokoji, Kamigyo-ku, Kyoto, Japan

b) Title of the seminar on 24th April 2009: "Spontaneous calcium oscillations in the isolated rat supraoptic nucleus neurons" Department of Veterinary Physiology, Tottori University, Japan

c) Title for teaching on 27th April 2009: "Molecular physiology of calcium signalling in the CNS supraoptic nucleus neurons and terminals of the hypothalamus" Department of Veterinary Physiology, Tottori University, Tottori, Japan

d) Title of the seminar on 12th May 2009: "Molecular physiology of calcium signalling in the CNS supraoptic nucleus neurons and terminals of the hypothalamus" Laboratory of Pharmacology, Graduate School of Veterinary Medicine, Hokkaido University, Sapporo, Japan

e) Title of the seminar on 22nd May 2009: "Physiology of magnocellular neurons and their terminals: calcium entry, calcium oscillations and their clearance mechanisms" Division of Interagative Physiology, Dept of Physiology, Jichi Medical School, Minamikawachi-machi, Kawachi-gun, Tochigi-ken-Japan

f) Title of the seminar on 19th May 2009: "Physiology of calcium homeostasis and neuropeptide regulation in the supraoptic nucleus neurons and nerve terminals" UOEH School of Medicine, Kitakyushu, Japan

g) Title of the seminar on 5th October 2009: "The physiology of magnocellular neurons and their axon terminals of the hypothalamus" Institute of Physiology, Academy of Sciences, Prague, Czech Republic

2010: Title of the teaching in Neuroscience program between 4-8 January 2010: "Calcium: life and death signals", University of Madras, India

2011: Title of the invited lecture on 2nd February 2011: Transgenic rat models to visualize fluorescent vasopressin and oxytocin in the dorsal root ganglia and glial cells. Kyoto Prefectural University of Medicine-Japan

2011: Title of the guest lecture on 3rd February 2011: Calcium: Life and Death signals in central and peripheral nervous system neurons. Kyoto University World-Leading Drug Discovery Research Center; Graduate School of Pharmaceutical Science. Kyoto university-Japan

Teaching at Master and M.Phil level (limited list only)

University of Madras-India: (1978-1982)

About 100 hours/year: teaching and practical courses for Master of Sciences and Master of Philosophy students in Physiology, Biochemistry, Zoology, Parasitology and Cell Biology.

University of Oxford-UK: (1987-1989)

About 20 hours/semester: teaching for 2nd year Medical Graduate Course in Physiology of anterior pituitary cells and stimulus-secretion-coupling in the hypothalamo-neurohypophysial system

Faculty of Medicine, Aix-Marseille 2-France: (1993-1998)

About 10 hours /semester teaching for M.Sc and M.Phil students in Endocrine cell communication System and calcium signalling; University of Montpellier II-France (2000-2006): Neuroscience course.

Direction of M.Phil students (the list is limited; is overlong):

"Biologie Cellulaire et Moleculaire" School of Meidcine, University of Strasbourg Graziella AZRAD, 1987: "Modulation de la sécrétion de vasopressine par l'éthanol"

"Biologie Cellulaire et Moleculaire" School of Meidcine, University of Strasbourg Marie-Françoise RITZ, 1990-1991: "Modulation de la sécrétion de vasopressine par l'endothéline"

"Biologie-Santé", University of Montpellier II Marion CLUZEL, 1992-1993: "Effets rapides des stéroïdes sur des neurones hypothalamiques en culture primaire: modulation de la libération de somatostatine et du signal calcique »

"Systèmes de communications intercellulaires en Endocrinologie" Aix-Marseille 2: Laure di MALTA, 1994-1995: "Autocontrôle des neurones vasopressinergiques: mécanismes d'action de la vasopressine et signification physiologique"

"Biologie-Santé" University of Montpellier II Nancy SABATIER, 1995-1996: "Signal calcique induit par l'ocytocine et la vasopressine dans le processus d'autocontrôle des neurones magnocellulaires hypothalamiques: nature des récepteurs et des canaux calcium mis en jeu"

"Biologie-Santé" University of Montpellier II Elsa MAZUC, 2002-2003: "Régulation par la calpaïne-3 des réponses calciques induites par la caféine dans des cultures primaires de cellules musculaires".

Neuroscience, University of Montellier II Sébastien ALPHANDERY, 2002-2003: "Régulation du calcium intracellulaire dans les motoneurones au cours du développement ".

Endocrinology-University of Montpellier II Cedric VIERO, 2004-2005: Intracellular calcium regulation in the sensory and motor neurones. Direction of Ph.D students:

Heike LINK, Thèse de Doctorat en Biologie Humaine (Doktors der Humanbiologie) à l'Université d'Ulm, Allemagne. (1989-1992). Thesis title: Regulation by oxytocin of ACTH secretion from anterior pituitary corticotropes: role of intracellular free calcium and glucocorticoides; "Regulation der ACTH-sekretion corticotroper zellen der adenohipophyse durch oxytocin: die rolle von intrezellulärem calcium und glucocorticoiden".

Regis LAMBERT, Alloc. MRES 1991-1994. Ph.D thesis at l'Université Louis Pasteur de Strasbourg. Thesis title: Effets et mécanismes d'action de l'ocytocine sur des éléments de réseaux neuronaux contrôlant les activations rythmiques des neurones ocytocinergiques pendant la tétée chez la Ratte.

Bruno HIVERT, Thèse de Doctorat à Université d'Angers (Octobre 1994-1997). Thesis title: Approche électrophysiologique, microspectrofluorimétrique et de l'étiologie de la Sclérose Latérale Amyotrophique: effets de sérums sur motoneurones en culture.

Laurent GOUZENES, Alloc. MRES, 1995-1999. Ph.D thesis at Université Montpellier II. Thesis title: Identification in vitro des récepteurs impliqués dans l'action de la vasopressine et de l'ocytocine.

Nancy SABATIER, Alloc. MRES, 1996-99. PhD thesis at Université Montpellier II. Thesis title: Mécanismes cellulaires de l'autocontrôle des neurones ocytocinergiques et vasopressinergiques par l'ocytocine et la vasopressine: importance des ions calcium.

Dr. Izumi SHIBUYA, Professor Assistant, Department of Physiology, University of Occupational and Environmental Health, Kitakyushu-Japon. Visiting scientist (2000-2001) supported by the Ministry of Research-France. Research program: "Régulation du Ca²⁺ intracellulaire dans cellules excitables et non-excitables"

Vivien CHEVALEYRE, Alloc. MRES- Ph.D Thesis at Université Montpellier II-France (1998-2001). Thesis title : „La libération de l'AVP et l'OT à partir du NSO au cours du développement”.

Vallerie LEURANGUER, Université Montpellier II, co-dir (1998-2001) Thesis title "Propriétés et fonctions des canaux calciques de type T”.

Françoise JAMIN, Université Montpellier II, co-dir (1997-2001) Thesis title: "Impaired somatodendritic responses to PACAP of magnocellular neurons in PAC1 receptor-deficient mice"

Murielle Chen-Kuo-Chang (2006-2008): (INSERM U583, UMII), Montpellier-France. „OPA1 and mitochondrial involvement in calcium clearance of mouse retinal ganglion cells"

Yoko Komori, Motoko Kuba, Masahiro Ishii, Maiko Abe (2006-2011). co-dir: Molecular Physiology of Calcium Signalling in the transgenic rats. University of Occupational and Environmental Health (UOEH), Kitakyushu; and Tottori university- Japan)

Hitoshi Suzuki, Makoto Kawasaki, Hideo Ohnishi, Hiroki Otsubo, Toyooki Ohbuchi, Akiko Katoh, Hirofumi Hashimoto (2006-2012). co-dir. University of Occupational and Environmental Health, Kitakyushu, Japan): (Transgenic rat models, AVP-eGFP and OT-eCFP), to study the physiology of magnocellular vasopressin and oxytocin neurons)

Oksana Forostyak 2008: co-dir; 2nd Medical Faculty of the Charles University, Prague Molecular Physiology of calcium signalling in the DRGs and Stem Cells.

Serhi Forostyak 2008: co-dir; 2nd Medical Faculty of the Charles University, Prague Molecular Physiology of calcium signalling in the DRGs and Stem Cells

David Arboledatoro 2008: co-dir; 2nd Medical Faculty of the Charles University, Prague Spontaneous calcium oscillations in the SON neurons of the hypothalamus

Sylvia Bernascone 2008-2010: co-dir; Università del Piemonte Orientale "A. Avogadro" Facoltà di Farmacia; Italy. Calcium signalling in neuronal and glial cells.

Stepan KORTUS, Co-Dir, 1Department of Neuroscience, 2nd faculty of Medicine, Charles University, V Uvalu 84, 15006 Prague, Czech Republic & IEM-ASCR, Prague.(2012-2018)
Thesis title: Electrical and secretory activity of the neural net of the supraoptic nucleus
[Czech Title: Elektrická a sekreční aktivita neurální sítě supraoptického jádra]

Organiser/Invited speaker at the conference/symposium (list is over long; resctried list)

(Organizer or co-organizer of more than 25 international congresses and meetings and organizer of many EU Frame work programs at the CNRS/Universities in the EU; 1999-2021)

1999: Patch-club de Montpellier Meeting, Manoir de Cazalet-Montpellier (with Dr. Nathalie Guérineau). Montpellier, 14 June, 1999.

2006: Organizer of "First Montpellier Calcium Conference" with participation of "Cell Calcium" Editorial Board. *"Cell Calcium in Montpellier: is it important?"* (10th April)-Montpellier-France.
<http://www.inmfrance.com/pdf/cellca01.pdf>

2007: VIIth World congress on neurohypophysial hormones-Regensburg-Germany (September 18-22). *"Neurosteroids are excitatory in supraoptic neurones but inhibitory in the PNS: it's all about oxytocin and progesterone receptors"* <http://www-wcnh2007.uni-r.de/>

2008: 24th Congress of the Polish Physiological Society-Lublin-Poland (September 11-13). Title: *"The role of calcium and calcium channels in the action and release of vasopressin, oxytocin and other neuropeptides in the CNS neurons vs terminals"* <http://congresspps.ar.lublin.pl/index.php?id=invitation>

2009: Cooperation in research and training for European excellence in the Neuroscience (CORTEX) (EU conference-2009), Institute of Experimental Medicine, Prague, Czech Republic (June 3-5). Title: *Patch-clamp recording and calcium imaging of stem cells "Physiology of Ca²⁺ signalling in hypothalamic neurons" and Calcium imaging techniques in situ, simultaneous recording of calcium currents and calcium imaging of stem cells in situ.*
<http://www.biomed.cas.cz/iem/regmed/>

2009: Joint Conference of the Czech and Slovak Neuroscience Societies; 2-4th November 2009-Prague, Czech Republic (7th Conference of the Czech Neuroscience Society and 1st Conference of the Slovak Neuroscience Society) *"Newly developed transgenic rat model for vasopressin (AVP-eGFP) and oxytocin (OT-eCFP) to study the physiology of magnocellular neurons of the hypothalamus"*
<http://www.biomed.cas.cz/uem/neuro2009/index.html>

2009: Symposium Organizer at The Federation of European Physiological Societies (FEPS): The Slovenian Physiological Society, The Austrian Physiological Society. Ljubljana-Slovenia (November 12-15). Symposium title: Vasopressin and Oxytocin receptors: looking for new tools, pharmacology and therapeutic agents. As a speaker; title: *"Vasopressin receptor-mediated calcium signals and peptide release in the supraoptic nucleus neurons: contradictions and compromises"*
http://lnmcp.mf.uni-lj.si/FEPS2009/Organizing_Programme_Committee.html

2010: NeuroTalk 24-28 June 2010 Symposium speaker: Track 1-14: Neuroendocrinology and Homeostatic; June 27, 08:30-12:00; Place: Singapore EXPO, Singapore
Title: *Neuroendocrine Physiology: Development of Newly Generated Transgenic Rat Models to Study the Physiology of Vasopressin and Oxytocin*
<http://www.bitlifesciences.com/neurotalk2010/Program.asp>

2011: International workshop on "Calcium Dynamics in Cells". UOEH School of Medicine-Japan 21st January 2011. Title: Ca²⁺ signalling, Ca²⁺ homeostasis and peptide release in the NHS neurones and terminals. <http://www.uoeh.u.ac.jp/library/JP/university/dept/graduate/gra/suisinprogram/topics/workshop2011.pdf>

2011: Title of the invited guest lecture on 2nd February 2011: Transgenic rat models to visualize fluorescent vasopressin and oxytocin in the dorsal root ganglia and glial cells. Kyoto Prefectural University of Medicine-Japan

2011: Title of the invited guest lecture on 3rd February 2011: Calcium: Life and Death signals in central and peripheral nervous system neurons. Kyoto University World-Leading Drug Discovery Research Center; Graduate School of Pharmaceutical Science. Kyoto university-Japan

2011: 13th International Neuroscience Winter Conference. Soelden, Austria, March 29-April 2,
Title: Physiopathology of calcium signalling in human embryonic stem cells and degenerative diseases.
<http://www.winterneuroscience.org/>

2011: Joint Conference of the Czech and Slovak Neuroscience Societies, Smolenice Castle, Slovak Republic; May 18-21, 2011 .
Title: Physiology of Ca²⁺ signalling in human embryonic stem cell-derived neural precursors (hESC NPs)
<http://www.niu.sav.sk/jccsns11/>

2011: AXREGEN Workshop-EU, Institute of Experimental Medicine, AS CR, Prague; June 20-23,
Title: Calcium imaging in stem cells and neurone-glia interactions

2012: International workshop on 'Calcium signalling' (with Prof. Yoichi Ueta). Kitakyushu, Japan, 20 January, 2012.

2012: Symposium on 'Stem cells and neurodegenerative diseases' (with Prof. Eva Sykova). 14th International Neuroscience Winter Conference. Solden, Austria, 10-14 April 2, 2012.

2013: Symposium on 'Physiology of oxytocin and vasopressin in the central and peripheral system' (with Prof. Eva Sykova). 15th International Neuroscience Winter Conference. Solden, Austria, 9-13 April, 2012.

2013: FENS Training School on 'Stem cells and biomaterials in regenerative medicine', FENS Featured Regional Meeting Training School, Prague, September 9-11, 2013.

2013: Symposium on 'Signalling in neuronal-glia network' (with Prof. Vladimir Parpura). FENS Featured Regional Meeting, Prague, 11-14 September, 2013.

2015: Joint International conference with Sree Balaji Medical College and Hospital, Chennai; September 2015

2016-2017: Joint International Conference with Alagappa University-Karikudi; September 2016-2019

2019: Joint International conference with Sree Balaji Medical College and Hospital and Sri Ramachandra Medical College; December 2019

2020: Six Special Guest Lectures at SRM University for Medical College and Biotechnology and signing MoU with SRM to start a new "Center of Neurosciences" with the President Prof. Sathyanarayanan; February,

2021: EU-COST ACTION on "Emerging Biomaterials and Regenerative Cardiology and Neurology (Multi-Disciplinary approach). July 26-30 July 2021; Prague, Czech Republic.
Invited Speaker and Scientific Committee Expert: Title: Physiopathology of calcium signals in Stem Cells; 28-07-2021.

2021: EU-COST ACTION on "Emerging Biomaterials and Regenerative Cardiology and Neurology (Multi-Disciplinary approach). October 21-27; 2021; Rome-Italy.
Invited Speaker and Scientific Committee Expert: Title: Bioelectrical activity and spontaneous calcium oscillations in CNS neurones.

2021: Seven Special Guest Lectures to Academics, Graduate and post-graduate students at Sree Balaji Medical College and Hospital, Chromepet, Chennai-India:

Ph.D students (the list is overlong and restricted since 2008)

However, the former PhD students' list is given:

1. Regis C. LAMBERT-1994 (published one paper in J.Physiology)
2. Florence RAGE-1994 (published two papers in J.Neuroscience and Neuroscience)
3. Brusno Hivert- 1995 (published one paper in Neuroscience with me)
4. Sylvie DIOCHOT-1995 (published one paper in J. Dev. Neuroscience)
5. Nancy SABATIER-1996 (published nearly 10 papers with me)
6. Amandine HURBIN-1997) Published one paper in J.Physiology)
7. Charlotte DELEUZE (1998 &2001) published one paper with me in J. Neuroscience, Neuroscience)
8. Sylvie VALENTIN- 1998 (published one fullpaper in Neuroscience)
9. Jean-Denis TRODEC-1998 (published two papers in J.Physiology)
10. Sylvie THIRION-1998 (Published two papers in J. Physiology)
11. Laurent GOUZENES-1998 (published three papers in J.Physiology and Neuroreport)
12. Gilles BOCCARA-1999 (published one paper in Circulation Research)
13. Cicile CHOBY-1999 (published one paper in Circulation Research)
14. Jean-Marc PRAPIER -1999 (published one paper in Circulation Research)
15. TOM KNOTT-2000 (published three papers on Alcohol Research)
16. Valerie LEURANGUER-2000 (published one paper in AM. Journal of Physiology)
17. Vivian CHEVALEYRE-2000 (published one paper in Journal of Neuroscience)
18. Denis PUBILL-2001 (published one paper in Cell Calcium)
19. Christian SIATKA-2001 (published one paper in Cell Calcium)
20. Yong YIN-2002 (published one paper in Journal of Physiology)
21. France JAMIN-2003 (published one paper in J.Neuroendoc)
22. Sonia ORTIZ-MIRANDA-2004 (published many papers with me as Doc and Post-doc)
23. Cedric VIERO; Herve APTEL; Ed CUSTER-2004-2006 (several papers published with them as Doc and Post-Doc)

2006-2020: The list is overlong: (Molecular Physiology of Calcium Signalling in the Transgenic rats)
Yoko Komori, Motoko Kuba, Masahiro Ishii, Maiko Abe (co-dir, University of Occupational and Environmental Health (UOEH), Kitakyushu; and Tottori university- Japan)

2006-2012: (Transgenic rat models, AVP-eGFP and OT-eCFP), to study the physiology of magnocellular vasopressin and oxytocin neurons) Hitoshi Suzuki, Makoto Kawasaki, Hideo Ohnishi, Hiroki Otsubo, Toyoaki Ohbuchi, Akiko Katoh, Hirofumi Hashimoto (co-dir. University of Occupational and Environmental Health, Kitakyushu, Japan)

2008-: (Molecular Physiology of calcium signaling in the DRGs, Stem Cells and neurodegenerative disease; ALS and AD)

Oksana Forostyak (co-direction; 2nd Medical Faculty of the Charles University, Prague)

Serhi Forostyak (co-direction; 2nd Medical Faculty of the Charles University, Prague)

David Arboledatoro (co-direction; 2nd Medical Faculty of the Charles University, Prague)

2010-: Physiopathology of Ca²⁺ signaling in motoneurons: use of stem cells in ALS rat model

Assimina Argyriou (co-direction; 2nd Medical Faculty of the Charles University, Prague)

2008-2010: (Spontaneous calcium oscillations in the SON neurons of the hypothalamus)

Sylvia Bernascone (co-dir ; Università del Piemonte Orientale "A. Avogadro" Facoltà di Farmacia; Italy)

2008-2020:

Trained nearly 20 PhD Students in Japan, Czech Republic, France, US, UK, Germany which resulted more than 40 papers

Financially supported research grants/programs in the IEM-AS CR with Prof Sykova (last 5 years)

My international mobility (limited to last 5 years)

I visit and do experiments 1-3 times /year from minimum of 2 -8 weeks in the following laboratories:

- 1) Japan: Prof Yoichi Ueta and Pr. Hiroshi Yamashita; UOEH School of Medicine
- 2) Japan: Pr. Izumi Shibuya: Dept of Physiology, Tottori University
- 3) Japan: Pr. Mitsuhiro Kawata, Dept. of Physiology, Kyoto Medical School
- 4) Japan: Pr. Ichihiko Sujimoto, Dept of Pharmacology, Kyoto University
- 5) USA: Pr. Jose R Lemos ; UMASS Medical School
- 6) USA: Dr. S. Chenchal Rao; MIT-Boston and Nashville
- 7) USA: DR. Sivan Subburaju; Dept of psychiatry, Harvard Medical school
- 8) UK: Pr. Alexei Verkhratsky; Department of Medical sciences, Manchester
- 9) India: Pr. Ramasamy Palliniappan: Sri Balaji Medical School-Chennai
- 10) India: Prof. Sathyanarayanan-President-SRM University, Chennai
- 10) Czech Republic (Eva Sykova, Oksana Forostyak, Serghey Forostyak, Eva Kmonickova, Stan Filip, Mokrey et al)
- 11) Several scientists from Hungary, Slovak, Slovenia, Russia and Poland, Italy, Netherlands, France..

Research Grants (French, Japan, Czech and EU)

1990-2000: NB: Obtained several Research Grants/Exchange Programs' grants between France and other EU countries: (PROCOPE: Franco-German 1990-1992; BALATON: Franco-Hungary-1991-1992; TELETON ITALIA-Franco-Italian-1993-1995; ALLIANCE: Franco-BRITISH-1997, 1998, 2000). The details are briefly described.

January 1990 - December 1991 (Strasbourg-France)

IREB/contrat n°: 1990/07; in collaboration with Jean J. Nordmann. Centre de Neurochimie du CNRS- Strasbourg. Project: Etude des effets de l'alcool sur la sécrétion neuropeptidergique au niveau de la neurohypophyse.

January 1990 - December 1990 (Strasbourg-France / Ulm-Germany) Franco-German collaborative programme (PROCOPE)

Ministère des Affaires Etrangères. Direction de la coopération Scientifique et Technologique-Programme de coopération scientifique entre la France et l'Allemagne-"PROCOPE" n° 90 268 (collaboration with "Abteilung Anatomie und Zellbiologie der Universität Ulm"- Germany).

Project: Botulinum A and Tetanus toxin effects on exocytotic release of AVP from isolated nerve terminals.

November 1990- December 1991 (Strasbourg-France / California-USA)

Neurex Corporation, 3760 Haven Avenue, Melono Park, CA 94025, USA. Contrat n°:26/11/1990; in collaboration with Jean J. Nordmann. Centre de Neurochimie du CNRS-Strasbourg. Projet: Effects of different "SNX" (Conotoxins) fractions on the release of AVP from isolated perfused neurosecretory nerve terminals from the rat neurohypophysis.

January - December 1992 (Montpellier-France / Ulm-Germany)

Franco-German collaborative programme (PROCOPE). Ministère des Affaires Etrangères. Direction de la coopération Scientifique et Technologique-Programme de cooperation scientifique entre la France et l'Allemagne -"PROCOPE" n° 92 126 (in collaboration with "Abteilung Anatomie und Zellbiologie der Universität Ulm"- Germany). Project: Mechanism of action of ACTH secretagogues (CRH, vasopressin and oxytocin) and glucocorticoid hormones in the adenohipophysis.

January - December 1993 (Montpellier-France / Ulm-Germany)

Franco-German collaborative programme (PROCOPE). Extension of the above programme "PROCOPE" n° 93 054 with "Abteilung Anatomie und Zellbiologie der Universität Ulm-Germany.

January - December 1994 (Montpellier-France / Budapest-Hungary)

Franco-Hungarian collaborative programme (BALATON). Ministère des Affaires Etrangères. Direction de la coopération Scientifique et Technologique-Programme de cooperation scientifique entre la France et la Hongrie - "BALATON" n° 94 033 (in collaboration with the Institute of Experimental Medicine, Hungarian Academy of Sciences, Budapest). Project: Central nervous system control of anterior pituitary receptors.

January - December 1995 (Montpellier-France / Budapest-Hungary)

Franco-Hungarian collaborative programme (BALATON). Extension of the above programme "BALATON " n° 94 033 with the Institute of Experimental Medicine, Hungarian Academy of Sciences, Budapest. Project: Central nervous system control of anterior pituitary receptors.

December 1996 (Montpellier-France / Milan-Italy)

"Visiting Scientist", Programme "CNR and Telethon-Italia"Laboratoire: Centro CNR Farmacologia Cellulare e Molecolare, Milan. Collaboration with Emmanuel Sher.

January 2000-December 2001

Ministère des Affaires Etrangères. Direction générale de la coopération Internationale et du développement. (Programme d'Action Intégrée) Franco-Britannique-ALLIANCE n° 00144QM (in collaboration with Pr. Gareth Leng: "Department of Physiology, University Medical School, Edinburgh- EK. Projet: Electrical behaviour of vasopressinergic supraoptic neurones : mathematical modeling, regulation by intracellular Ca²⁺ and neuropeptides.

Japanese Society for Promotion of Science Fellowship Program (#FY2008; S-08216). Joint project received major support to develop the new transgenic rats for vasopressin and oxytocin (2003-2006; 2006-2009; 2009-2012). On this grant these transgenic rats were imported to IEM-AS CR-Prague and authorised to establish new projects in France/EU, co-director of all students who involved in these projects with 3 Japanese and 1 British Institutions.

Research and Instrumentation facilities from the Institute of Experimental Medicine of the Academy of Sciences of the Czech Republic IEM-ASCR is supported on Stem Cells therapy and Brain Repair

by the Grant Agency of the Czech Republic grants GACR 309/08/1381; GACR 305/08/1384 and GACR 309/09/1597; The Academy of Sciences of the Czech Republic grant AVOZ 50390512; PITN-GA-2008-214003, 1M0538; The Ministry of Education, Youth and Sports of the Czech Republic grants #1M0538. On these grants, many of the fluorescence microscopy, modern imaging facilities, high resolution CCD imaging with electrophysiology instruments including fluorescence spectrofluorimetry have been installed. A few students have been appointed who joined with us to run the projects.

“ENINET” (2008-2010) is an EU program which supports to invite important guests from all over the world to deliver special lectures in the IEM under a defined topic.

2008-2013: (principal investigator) CNRS/INSERM-France; JSPS-Japan in collaboration with Prof. Yoichi Ueta: ‘Generation of new transgenic rats’ model to study the physiology of vasopressin and oxytocin at the central and peripheral level’

2011-2012 (Co-PI-EDU Glia Neuroscience (Prague, Prague) Grant; Eudu-Glia: Training Net Work Program; People-ITN-2008; "Innovative techniques and models to study glia-neuron interactions" ID# 237956

2011-2013: (principal investigator) Czech Grant Agency; GA CR P303/11/0192; CNRS-France: ‘The physiology of vasopressin and oxytocin signalling in neuron-glia interactions, nociception, nerve injury, pregnancy and lactation’

2011-2013: (principal investigator) Czech Grant Agency; GA CR P304/11/2373: ‘The physiology of calcium signalling in human embryonic stem cell-derived neuronal precursors’

2014-2015: (Principal Investigator) EU Joint Programme - Neurodegenerative Disease Research; GRANT_NUMBER: CZ 2.16/3.16/3.1.00/21527; Operational Program for Education and Initial Professional Training (OPEIPT) II (Prague, CZ)

2014-2016: (principal Investigator) Czech Grant Agency; GA CR P304/14/34077S: ‘Calcium homeostasis in central and peripheral oxytocin and vasopressin neurons: repercussions in osmoregulation, pregnancy, lactation and nociception’

Jan 2015-Dec 2017: 36 months; 5 974 000 CZK; ~221 000 €
Source: Czech Grant Agency; grant ID# GA CR P304/15/09161S ; Role: Project participant
Title: Muscle remodelling on the basis of extracellular matrix seeded with functionally characterized stem cells.

Jan 2012-Dec 2018: 84 months; amount: confidential; Source: Czech Grant Agency; grant ID# GBP P304/12/G069; Role: Project participant; Title: ‘Projekt excellence v oblasti neuroved’ (“Project of Excellence in the field of Neuroscience”)

2017-2019: (principal investigator) Czech Grant Agency; GA CR P303/17/27408S: ‘Excitation-calcium oscillations-secretion-coupling in the vasopressin and oxytocin neurons of the rat supraoptic nucleus’

2017-2019: (Principal investigator) Czech Grant Agency; GA CR P303/17/21146: ‘Ion channels and regenerative potential of human induced pluripotent stem cells neural progenitors in the context of motor neurons degeneration’

2017-2022: European Union, (Excellent Researcher; Team Leader #3): “Center of Reconstructive Neuroscience’: Molecular signalling in Stem Cells” EU ID# CZ.02.1.01/0.0/0.0/15_003/0000419.

Research Grant management (in detail)

1. Jan 2017-Dec 2019: 36 months; 7 968 000 CZK; ~295 000 €
 Source: Czech Grant Agency; grant ID# GA CR P303/17/27408S
 Role: Principal Investigator
 Title: Excitation-calcium oscillations-secretion-coupling in the vasopressin and oxytocin neurons of the rat supraoptic nucleus
2. Jan 2017-Dec 2019: 36 months; 8 265 000 CZK; ~306 000 €
 Source: Czech Grant Agency; grant ID# GA CR P303/17/21146S
 Role: Principal Investigator
 Title: Ion channels and regenerative potential of human induced pluripotent stem cells neural progenitors in the context of motor neurons degeneration
3. Jan 2017-Dec 2022: 72 months; about 152.24 million CZK; ~5.63 Million €
 Source: EU Structural Investment Funds: 'Center of Reconstructive Neuroscience':
 Project ID # CZ.02.1.01/0.0/0.0/15_003/0000419
 Role: Excellent Researcher & Team Leader
 Title: Head of the team project: "Molecular signalling in Stem Cells"
4. Jan 2015-Dec 2017: 36 months; 5 974 000 CZK; ~221 000 €
 Source: Czech Grant Agency; grant ID# GA CR P304/15/09161S
 Role: Project participant
 Title: Muscle remodelling on the basis of extracellular matrix seeded with functionally characterized stem cells.
5. Jan 2012-Dec 2018: 84 months; amount: confidential
 Source: Czech Grant Agency; grant ID# GBP P304/12/G069
 Role: Project participant
 Title: 'Projekt excellence v oblasti neuroved' ("Project of Excellence in the field of Neuroscience")

Completed grants (specific details could be found in the website: GACR-CZ for Czech grants; and Europa (for EU grants))

1. Jan 2014-Sep 2014: 9 months; ~26 000 €
 Source: Prague City Hall, Operational Program Prague for competition (OPPK); Project ID# CZ 2.16/3.1.00/21527
 Role: Project participant
 Title: Advanced imaging of living tissues and purchase of monochromator for fluorescence microscopy. This grant was specifically allocated to complement the Zeiss fluorescence imaging system.
2. Nov 2012-Apr 2015: 30 months; 18 728 000 CZK; ~€ 720 308
 Source: European Union Social Funds; Project ID# EE2.CZ.1.07/2.3.00/20.0274
 Role: European Union Chief Scientist
 Title: Human Resources for Neurosciences: 'NEUROREGION'
3. Sep 2011-Dec 2011: 4 months; 24 000 €
 Source: European Union Program FP7-People-Initial Training Network
 (Project ID# EDU-Glia 237956; FP7-PEOPLE-ITN-2008)
http://cordis.europa.eu/project/rcn/92946_en.html

Role: EU Guest Scientist

Title: Innovative techniques and models to study glia-neuron interactions

4. Jan 2014-Dec 2016: 36 months; 9 700 000 CZK; ~388 000 €

Source: Czech Grant Agency; grant ID# GA CR P304/14/34077S

Role: Principal Investigator

Title: Calcium homeostasis in central and peripheral oxytocin and vasopressin neurons: repercussions in osmoregulation, pregnancy, lactation and nociception

5. Jan 2014-Dec 2016: 36 months; 6 980 000 CZK; ~256 000 €

Source: Czech Grant Agency; grant ID# GA CR P303/14/04329S

Role: Project participant

Title: Relationship between biological activities of sesquiterpene lactones to their subcellular localization

6. Jan 2011-Dec 2013: 36 months; 6 561 000 CZK; ~285 000 €

Source: Czech Grant Agency; grant ID# GA CR P304/11/2373

Role: Principal Investigator

Title: The physiology of calcium signalling in human embryonic stem cell-derived neuronal precursors.

7. Jan 2011-Dec 2013: 36 months; 7 03 800 CZK; ~306 000 €

Source: Czech Grant Agency; grant ID# GA CR P303/11/0192

Role: Principal Investigator

Project Title: The physiology of vasopressin and oxytocin signalling in neuron-glia interactions, nociception, nerve injury, pregnancy and lactation.

Investigators: Eva Sykova, Govindan Dayanithi (EU Chief foreign Scientist), Stanislav Filip, Jaroslav Mokry, Martin Sames

Total funds allocated for project - CZKč: 18 728 000 (in Euros: 720 308)

At present, the global issues of biotechnology addressed the introduction of new technologies and procedures in the diagnosis and treatment of disease. Request of an interdisciplinary approach leads to a demand for closer cooperation of clinical and research centers. IEM AS CZ in Prague (Institute of Experimental Medicine, Academy of Science), expanded considerably issues of neuroscience, cell therapy and regenerative medicine, and its activity excels in the scientific field and the training of young scientists. Medical Faculty of Charles University in Hradec Kralove has priority status in the education of future physicians in the Czech Republic as well as in clinical medicine, both in diagnosis and therapy. Linking these complementary activities enable to establish new research teams that communicate with each other to create new information and methodological approaches in the diagnosis and treatment of serious diseases. The former cooperation between Medical Faculty in Hradec Kralove and IEM has previously been created by one working group of experts aimed at the regeneration of supporting tissues (cell biology, genetics, orthopedics, neurosurgery, oncology and tissue banks) and developed a new treatment method focused on the treatment of degenerative and traumatic damage to the musculoskeletal system using cellular therapy. The main purpose of the project is to transfer the theoretical and methodological experience of experimental scientific teams of IEM to the training of future doctors at the Medical Faculty in particular in the field of neuroscience, and additional current neurooncology directions with high research and social potential.

GBP304/12/G069 GAO

Project of excellence in the field of neuroscience

Contractor: Institute of Physiology AS CR, v. v. i.
 Principal investigator: Ladislav Vyklický Jr., MD, DSc
 Project participant: The National Institute of Mental Health
 Investigator: Daniela Řípová, PhD
 Project participant: Institute of Experimental Medicine AS CR, v.v.i.
 Investigator: Prof. Josef Syka, MD, DSc, FCMA
 Project participant: Charles University, 2nd Faculty of Medicine
 Investigator: Miroslava Anděrová, PhD
 Duration: 2012–2018

GA14-34077S GAO

Calcium homeostasis in central and peripheral oxytocin and vasopressin neurons: repercussions in osmoregulation, pregnancy, lactation and nociception
 Contractor: Institute of Experimental Medicine AS CR, v.v.i.
 Principal investigator: Prof. Govindan Dayanithi, PhD
 Duration: 2014–2016

Prague City Hall, Operational Programme Prague for competition (OPPK)
 CZ 2.16/3.1.00/21527

Advanced imaging of living tissues
 Contractor: Institute of Experimental Medicine AS CR, v.v.i.
 Principal investigator: Jan Malinský, PhD
 Project summary: The objective of the project was to purchase new microscope technology to enhance competition of the biomedical research carried out at the Institute.
 Duration: 01–09/2014

Major outcome results from these projects are:

Major themes :

- i) molecular neurophysiology and calcium homeostasis in vasopressin (AVP) and oxytocin (OT) neurons and nerve terminals of the hypothalamus.
- ii) molecular mechanisms involved in the activation of plasma membrane calcium entry pathways with the modulatory effect of intracellular calcium release.
- iii) physiology of AVP and OT in the central and peripheral nervous systems using newly developed transgenic rat models to visualize fluorescent AVP and OT (AVP-eGFP; OT-eCFP; OT-mRFP1; and double transgenic rats for AVP-eGFP and OT-mRFP1).
- iv) physiology of AVP and OT signalling in DRG neurons and glia; and their implications in nociception, injury, pain, pregnancy, lactation.
- v) physiology of cellular signalling mechanisms in human embryonic stem cell-derived neural precursors (hESC NPs), properties of neural precursors derived from adipose and bone marrow mesenchymal stem cells.
- vi) pathophysiology of calcium signalling in neurodegeneration (motoneurone pathology in ALS disease)
- vii) development of the new potential drugs (agonists and antagonists) for IP3 and SERCA in bilateral collaboration with Chinese Institutions.

Organization of symposium/conferences/workshops

1999: Patch-club de Montpellier Meeting, Manoir de Cazalet-Montpellier (with Dr. Nathalie Guérineau).
 Montpellier, 14 June, 1999.

- 2006:** First Montpellier Calcium Conference (with Dr. Patrice Mollard, Dr. Frédéric Bancel and Dr. Nathalie Guérineau). Montpellier, 10 April, 2006.
- 2007:** Symposium on 'Physiology of vasopressin and oxytocin' 7th World Congress on Neurohypophysial Hormones. Regensburg, 18-22 September, 2007.
- 2009:** European Union Workshop-CORTEX on 'Patch-clamp recording and calcium imaging of stem cells', Prague, 3-5 June, 2009.
- 2009:** International Workshop on 'Stem cells, biomaterials and nanotechnologies in regenerative medicine' 7th International Stem Cell School in Regenerative Medicine. Prague, November 5-7, 2009.
- 2009:** Symposium on 'Vasopresin and oxytocin receptors: looking for new tools, pharmacology and therapeutic agents'. The joint meeting of FEPS and Slovenian Physiological Society, Ljubljana, 12-15 November, 2009.
- 2011:** International workshop on 'Calcium dynamics in cells' (with Prof. Yoichi Ueta). Kitakyushu, Japan, 21 January, 2011.
- 2011:** Symposium 'Physiopathology of calcium signalling in human embryonic stem cells and degenerative diseases' (with Prof. Eva Sykova). 13th International Neuroscience Winter Conference. Solden, Austria, March 29-April 2, 2011.
- 2011:** European Union Workshop-AXREGEN on 'Calcium imaging in stem cells' Prague; 20-23 June, 2011.
- 2012:** Symposium on 'Stem cells and neurodegenerative diseases' (with Prof. Eva Sykova). 14th International Neuroscience Winter Conference. Solden, Austria, 10-14 April 2, 2012.
- 2013:** Symposium on 'Physiology of oxytocin and vasopressin in the central and peripheral system' (with Prof. Eva Sykova). 15th International Neuroscience Winter Conference. Solden, Austria, 9-13 April, 2013.
- 2013:** FENS Training School on 'Stem cells and biomaterials in regenerative medicine', FENS Featured Regional Meeting Training School, Prague, September 9-11, 2013.
- 2013:** Symposium on 'Signalling in neuronal-glia network' (with Prof. Vladimir Parpura). FENS Featured Regional Meeting, Prague, 11-14 September, 2013.
- 2016:** Joint International Conference with Alagappa University-Karikudi; September 2016.
- 2017-2018:** workshops/conferences/Annual seminars/Teaching and Research activities with University of Occupational and Environmental Health School of Medicine with Prof. Yoichi Ueta; and School of Vet Medicine, Tottori University with Prof. Izumi Shibuya.
- 2019:** Joint International conference with Sree Balaji Medical College and Hospital and Sri Ramachandra Medical College; December 2019
- 2020: Six Special Guest Lectures** at SRM University for Medical College and Biotechnology and signing MoU with SRM to start a new "Center of Neurosciences" with the President Prof. Sathyanarayanan; February, 2020.

2021: Seven Guest Magestrate Lectures at Sree Balaji Medical College and Hospital, Chromepet, Chennai-India. (23 November-15 December 2021).

Thesis, Editorial, Book Chapters, Books

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- 1981: Dayanithi G & Ravindranath MH.** Effect of surgical excision of the sinus gland and eyestalk ablation on osmotic regulation. In: Manual of Research Methods for Crustacean Biochemistry and Physiology. (Ed. Ravindranath MH) CMFRI-India Special Publication-August 1981, 7:141-143.
- 1982: Dayanithi G.** Effects of eyestalk ablation on haemolymph proteins and excretion of their catabolic products in *Scylla serreta*. (Forsk: Crustacea-Decapoda). Ph.D Thesis-August 1982, University of Madras-India, pages 139.
- 1985: Nordmann JJ, Dayanithi G & Cazalis M.** Coupling between the bioelectrical activity of a neurosecretory cell and the release at its terminals neuropeptides. In: Vasopressin. (Ed. Schreier R.) Raven Press, New York, 1985, pp. 375-383.
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- 2012: Toescu EC & Dayanithi G.** Neuroendocrine signalling: natural variations on a Ca²⁺ theme. Cell Calcium 51 (2012): 207-211 (Editorial).
- 2012: Lemos JR, Dayanithi G, Dad T, Custer ED & Ortiz-Miranda S.** mu-Opioid receptor modulation of oxytocin and vasopressin release in the hypothalamic-neurohypophysial system. In: Opioids: Pharmacology, Clinical Uses and Adverse Effects. (Eds. Djavahi Tvildiani & Kakha Gegechkori). ISBN 978-1-61942-101-1; Nova Science Publishers, Inc-USA, 2012, Chapter 3, Pages 35-58.
- 2016: Dayanithi G & Verkhatsky A** (2016). Calcium signalling in stem cells: Molecular physiology and multiple roles. Cell Calcium 59: 55-56 (Editorial).
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2021: Palaniappan R and Dayanithi G. (2021). Therapeutic efficacy of bacteriophages: in, Bacteriophages in Therapeutics, (Ed) Sonia B. Bhardwaj.
DOI: <http://dx.doi.org/10.5772/intechopen.97619>.

BOOK Editor (Ouvrage) (2012) “Les Atrophies Optiques Héritaires” *Des pathologies cécitantes génétiquement transmissible.*

Authors: Chen-Kuo-Chang Murielle, **Dayanithi Govindan**, Kamei Satomi

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Book Editor-2020

Current Book: International Neuroendocrine Federation (INF) Master class in Neuroendocrinology Series “**Neurosecretion: Secretory Mechanisms**” Editors: José R. Lemos and Jose R Lemos & **Govindan Dayanithi** Publisher: Springer NATURE ID# DocuSign Envelope ID: 3F7D3DE7-07AE-478E-AD82-00875977832E Contract number: 71455 Contract signed in July 2018 and published in April 1, 2020

Summary of the Book:

How do electrical activity and calcium signals in neurons influence the secretion of peptide hormones? This volume presents the current state of knowledge regarding the electrical, calcium signaling and synaptic properties of neuroendocrine systems from both vertebrate and invertebrate systems. The contributions span in vivo and in vitro studies that address: state-dependent plasticity, relevance of firing patterns, membrane properties, calcium flux (including dynamic imaging and homeostasis), and molecular mechanisms of exocytosis, including from non-neuronal secretory cells. The chapters focus not only on research results but also on how experiments are conducted using state-of-the-art techniques, and how the resulting data are interpreted. While there are many books on the secretory properties of neurons, this is the first to focus on the distinctive secretory properties of neuroendocrine neurons. Accordingly, it offers an important text for undergraduate and graduate neuroscience students, and will also appeal to established scientists and postdoctoral fellows. This is the eighth volume in the Masterclass in Neuroendocrinology series - now a co-publication between Springer Nature and the INF (International Neuroendocrine Federation).*

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151. Forostyak O, Forostyak S, Arboleda D, Dayanithi G & Sykova E (2014). Sensory vasopressin and oxytocin unveiled in rats. Student's Scientific Conference, 2nd Faculty of Medicine, Charles University in Prague-Czech Republic, April 24-25.
152. Kortus S, Dayanithi G & Zapotocky M (2014). Analysis of Ca^{2+} dynamics in magnocellular neurones. XXXVII. Days of Medical Biophysics. Liptovsky Mikulas-Slovakia, May 26-30.
153. Moriya T, Shibasaki R, Kayano T, Takebuchi N, Ichimura M, Kitamura N, Asano A, Hozaka YZ, Forostyak O, Verkhatsky A, Dayanithi G & Shibuya I (2014). RT-PCR and Ca^{2+} imaging analyses of osmoreceptor molecules in the rat SON. Society for Neuroscience, Washington DC-USA, November 15-19, abstract 125.04/B46.

154. Forostyak O, Butenko O, Forostyak S, Anderova M, Dayanithi G & Sykova E (2015). Comparative analysis of ion channels and receptors in adipose derived- and bone marrow stromal cells. Student's Scientific Conference, 2nd Faculty of Medicine, Charles University-Prague, Czech Rep, April 22-23.
155. *Mokry J, Hrebíková H, Chvátalová J, Písal R, Kunke D, Filip S & Dayanithi G (2015). Seeding decellularized muscle scaffolds with myoblasts. International Society for Stem Cell Research (ISSCR) Annual meeting Stockholm, Sweden, June 24-27, abstract TI 123; pp243.
156. *Kortus S, Dayanithi G & Zapotocky M (2015). Computational estimation of calcium fluxes in isolated magnocellular neurons. CNS 2015: 24th Annual Computational Neuroscience Meeting. Prague-Czech Republic, July 18-23.
157. Dayanithi G (2015). Calcium signals in supraoptic nucleus neurons of the hypothalamus. 2015: Joint International conference with Sree Balaji Medical College and Hospital, Chennai; September 12-13.
158. Forostyak O, Forostyak S, Sykova E & Dayanithi G (2015). Ion channels and ionotropic receptors in adipose and bone marrow derived stem cells. The 10th Conference of the Czech Neuroscience Society, Prague-Czech Republic, November 18-19.
159. Dayanithi G, Forostyak O, Forostyak S, Verdier JM & Sykova E (2015). Calcium profiling of stem cells. The 10th Conference of the Czech Neuroscience Society, Prague-Czech Republic, November 18-19.
160. Forostyak S, Forostyak O, Kwok J, Jendelova P, Seneklova M, Romanyuk N, Dayanithi G, Fawcett J & Sykova E (2015). Potential use of human neural precursors derived from induced pluripotent stem cells for the therapy of ALS. The 10th Conference of the Czech Neuroscience Society, Prague-Czech Republic, November 18-19.
161. Kortus S, Srinivasan C, Forostyak O, Sykova E, Zapotocky M & Dayanithi G (2015). Physiology of [Ca²⁺]_i oscillations in the supraoptic vasopressin and oxytocin neurones. The 10th Conference of the Czech Neuroscience Society, Prague-Czech Republic, November 18-19.
162. Dayanithi G (2016). Physiology of ion channels and receptors in stem cells of different origins and different stages. International conference on "Recent advances in modern medicine: Molecular signalling scenarios in tissues and diseases" "CONNECTION" 2016, Chennai-India: January 28.
163. Dayanithi G (2016). Pregnancy and Lactation-related Stress and Pain. Neuroscience series Guest Lecture, Sree Balaji Medical College & Hospital, Chennai-India. February 1.
164. Dayanithi G (2016). HPA-Axis and the physiology of neurohypophysial hormones. Neuroscience series Guest Lecture, Sree Balaji Medical College & Hospital, Chennai-India. February 3.
165. Dayanithi G, Kortus S, Forostyak O, Sykova E & Verkhatsky A (2016). Calcium oscillations in the isolated vasopressin neurons of the rat supraoptic nucleus. The Endocrine Society's 98th Annual Meeting & Expo, April 1-4, 2016 – Boston. Published in Endocrine Reviews, Volume 37, Issue 2 Supplement.
166. Forostyak O, Forostyak S, Sykova E & Dayanithi G (2016). Oxytocin and Vasopressin-induced Calcium Signals in Rat Adipose and Bone Marrow Derived Stem Cells. The Endocrine Society's 98th Annual Meeting & Expo, April 1-4, 2016 – Boston. Published in Endocrine Reviews, Volume 37, Issue 2 Supplement.
167. Dayanithi G (2016). Physiology and mechanisms of spontaneous calcium oscillations in the AVP and OT neurones. JSPS Invited Summer Lecture, UOEH School of Medicine, Kitakyushu, Japan; July 20.
168. Dayanithi G (2016). Hypothalamo-Pituitary-Axis and the physiology of neurohypophysial hormones. Joint International Conference with Alagappa University-Karikudi-India; September 6.
169. Dayanithi G (2016). Physiology of Biological & Environmental Stress. ENVOCCON Conference, SBMCH, Chennai-India; September 10.

170. Dayanithi G (2016). Physiopathology of Stress. Joint Conference with SBMCH and Sri Ramachandra University-Chennai-India; September 12.
171. Dayanithi G (2016). Neuroendocrine signalling: natural variations on a calcium theme. Faculty of Medicine in Plzen; Master Lecture; Charles University, Institute of Pharmacology & Toxicology. 7 December 2017.
172. Dayanithi G (2017). Plasticity of ion channels, ionotropic receptors and calcium signalling mechanisms in stem cells of different origins, different stages and different experimental conditions. EU_OPVVV project: "Regeneration, plasticity, protection"; 10-11 January, Prague-CZ.
173. Dayanithi G (2017). Workshop on "Human stem cells derived astrocytes as a new platform for studying neurological disorders": Presentation Title: Physiopathology of Ca²⁺-signals, ion channels and receptors in the neural progenitors derived from stem cells of different origin during differentiation toward mature neural cells" Prague-CZ, April 4.
174. Dayanithi G (2017). Effect of ethanol on the hypothalamic vasopressin and oxytocin release and on the spontaneous calcium oscillations in the supraoptic nucleus neurons and nerve terminals. 22nd Interdisciplinary Toxicology Conference Toxcon, Medical Faculty-Charles University in Plzen-CZ. June 21-23.
175. Dayanithi G (2017). Physiopathology of ion channels and receptors in stem cells of different origins and experimental conditions.; JSPS Annual Guest Lecture, Department of Physiology, UOEH School of Medicine; Kitakyushu, Japan. August 9.
176. Dayanithi G (2017). Effect of ethanol on the electrical activity, spontaneous calcium oscillations and release of vasopressin (AVP) and oxytocin (OT) from the hypothalamic supraoptic AVP and OT neurones. JSPS Annual Guest Lecture, Department of Physiology, UOEH School of Medicine; Kitakyushu, Japan; August 9.
177. Kortus S, Dayanithi G, and Zapotocky M (2018). Intracellular fluxes contributing to [Ca²⁺]_i responses in rat magnocellular neurons. Organization for Computational Neurosciences; Conference. Seattle-USA; July 13-18.
178. Dayanithi G (2018). Calcium signalling in PNS-DRG neurones: role in dehydration, pregnancy and lactation. JSPS Guest Lecture at Department of Physiology, UOEH School of Medicine, Kitakyushu, Japan. July 27-2018.
179. Dayanithi G (2019). Physiology and pathophysiology of neuroglia with some emphasis on neurodegenerative disease (AD). Sree Balaji Medical College & Hospital, Chennai-India. Lecture series on "Recent advances in Molecular Medicine"; December 5-AM.
180. Dayanithi G (2019). Physiopathology of Stress and Stress Hormones. Sree Balaji Medical College & Hospital, Chennai-India. Lecture series on "Recent advances in Molecular Medicine"; December 5-PM.
181. Dayanithi G (2019). Calcium Channels: Physiology, Pharmacology & Drug Development. Sree Balaji Medical College & Hospital, Chennai-India. Lecture series on "Recent advances in Molecular Medicine"; December 7-AM.
182. Dayanithi G (2019). Physiopathology of Calcium Signalling in Excitable cells. Sree Balaji Medical College & Hospital, Chennai-India. Lecture series on "Recent advances in Molecular Medicine"; December 7-PM.
183. Dayanithi G (2019). Vasopressin and Oxytocin: Pharmacotherapy in Obstetrics. Sree Balaji Medical College & Hospital, Chennai-India. Lecture series on "Recent advances in Molecular Medicine"; December 9.
184. Dayanithi G (2019). NEUROSECRETION: to date. Sree Balaji Medical College & Hospital, Chennai-India. Lecture series on "Recent advances in Molecular Medicine"; December 13.

185. Dayanithi G (2019). Physiopathology of Alcohol Addiction/Tolerance. Sree Balaji Medical Colege & Hospital, Chennai-India. Lecture series on “Recent advances in Molecular Medicine”; December 16.
186. Dayanithi G. (2019). Physiopathology of Alcohol addiction/tolerance. Sree Balaji Medical Colege & Hospital, Chennai-India. Lecture series on “Recent advances in Molecular Medicine” Magestrate Guest Lecture. 17th December 2019-AM.
187. Dayanithi G. (2019). Pharmacology of calcium channels in drug development Sree Balaji Medical Colege & Hospital, Chennai-India. Lecture series on “Recent advances in Molecular Medicine” Magestrate Guest Lecture. December 17, 2019-PM
188. Dayanithi G (2019). Efficacy of Neurosecretion in Physiotherapy. Sree Balaji Colege of Physiotherapy, Chennai-India. Guest Lecture. December 19.
189. Dayanithi G. (2020). Physiopathology of central vasopressin and oxytocin in hypothalamic cell bodies and nerve terminals. “Magestrate Lecture series in Neuroscience”; SRM Unversity Medical College, Chennai-India. 18th February 2020.
190. Dayanithi G. (2020). Physiological role of peripheral vasopressin and oxytocin in dorsal root ganglia: implications in spinal pain during pregnancy and post-delivery psychological disorders in women. “Magestrate Lecture series in Neuroscience”; SRM Unversity Medical College, Chennai-India. 19th February 2020.
191. Dayanithi G. (2020). Vasopressin and Oxytocin: sexual disorders in men. “Magestrate Lecture series in Neuroscience”; SRM Unversity Medical College, Chennai-India. 24th February 2020.
192. Dayanithi G. (2020). Physiology of vasopressin and oxytocin neurons: implications in drug and development in modern diseases. “Magestrate Lecture series in Neuroscience”; SRM Unversity Medical College, Chennai-India. 24th February 2020.
193. Dayanithi G. (2020). Alcohol: pathology, addiction and tolerance. “Magestrate Lecture series in Neuroscience”; SRM Unversity Medical College, Chennai-India. 25th February 2020.
194. Dayanithi G. (2020). Physiopathology of calcium signals in stem Cells of different origin and different experimental conditions: Clinical approach and clinical trials. “Magestrate Lecture series in Neuroscience”; SRM Unversity Medical College, Chennai-India. 26th February 2020.
195. Dayanithi G. (2020). HPA-role in stress, depression. “Magestrate Lecture series in Neuroscience”; SRM Unversity Medical College, Chennai-India. 27th February 2020.
196. Dayanithi G. (2020). Glucocorticoid feedback: CRH, AVP and OT. “Magestrate Lecture series in Neuroscience”; SRM Unversity Medical College, Chennai-India. 28th February 2020.
197. Dayanithi G. (2021). Physiology and pathophysiology of astroglia with some emphasis on neurodegenerative diseases. Sree Balaji Medical Colege & Hospital, Chennai-India. Guest Lecture series on “Neuroscience and neurodegenerative diseases” Magestrate Guest Lecture; 26th November 2021.
198. Dayanithi G. (2021). Neurosecretion: up to date. Sree Balaji Medical Colege & Hospital, Chennai-India. Lecture series on “Neuroscience and neurodegenerative diseases” Magestrate Guest Lecture; 29th November 2021.
199. Dayanithi G. (2021). Physiopathology of alcohol adiction and tolerance. Sree Balaji Medical Colege & Hospital, Chennai-India. Lecture series on Lecture series on “Recent advances in Molecular Medicine”; Magestrate Guest Lecture. 30th November 2021.
200. Dayanithi G. (2021). Efficacy of Neurosecretion in Physiotherapy. Sree Balaji Colege of Physiotherapy, Chennai-India. Lecture series on “Neuroscience and neurodegenerative diseases” Guest Lecture. 2nd December 2021.

201. Dayanithi G. (2021). Vasopressin and Oxytocin: sexual disorders in men. Sree Balaji College of Physiotherapy, Chennai-India. Lecture series on "Neuroscience and neurodegenerative diseases" Magistrate Guest Lecture. 6th December 2021.
202. Dayanithi G. (2021). Stem cells : use and abuse. Sree Balaji College of Physiotherapy, Chennai-India. Lecture series on "Neuroscience and neurodegenerative diseases" Magistrate Guest Lecture. 8th December 2021.
203. Dayanithi G. (2021). Physiopathology of Calcium signals in excitable cells. Sree Balaji Medical College & Hospital, Chennai-India. Lecture series on "Neuroscience and neurodegenerative diseases" Magistrate Guest Lecture. 9th December 2021.