UNIVERSITÀ degli STUDI MAGNA GRÆCIA
di CATANZARO
Dipartimento di Medicina Sperimentale e Clinica
Centro di Ricerca di Biochimica e Biologia Molecolare Avanzata

Prof. Giovanni Cuda

Catanzaro, 21.12.2020

Prof. Valeria Poli
President, SIBBM

Dear Professor Poli:

with this letter I wish to inform you of my intention to re-propose my candidacy to the SIBBM Board for the next three years.
My experience in the previous term has been extremely constructive. In the past three years I have had the opportunity to actively participate, also in consideration of my role as secretary-treasurer, in the work of the Society, whose action in favor of the members, especially the junior ones, has been continuous and very effective.
Should I be re-elected, I will try to work with greater commitment and intensity and give my contribution to the growth of SIBBM, favoring a greater dissemination of its initiatives and proposing new activities, in order to make the Society an important stakeholder in the Italian scientific panorama.
My work in support of the Board and the President will be focused on expanding the initiatives in favor of the members, with particular attention to junior members, whose presence within the SIBBM must be strengthened and favored. The younger generations of researchers represent, in fact, an extraordinary added value to the SIBBM, and my goal will be to contribute to the realization of their expectations.
I hope that the SIBBM will acquire a greater visibility in the next three years and, through its action, the potential of research in Biophysics and Molecular Biology, especially in this complex phase of the COVID-19 pandemic, will find application in the scenario of the italian and international scientific research.
Please, find attached a short CV.

With my warmest regards,

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UNIVERSITÀ degli STUDI MAGNA GRÆCIA di CATANZARO
Commissione Ricerca di Ateneo

CURRICULUM VITAE ET STUDIORUM

Prof. Giovanni CUDA

Place and date of birth Andali (CZ), Italy, 14 January 1962

Present Position: Professor of Molecular Biology, University Magna Græcia, Medical School, Catanzaro (Italy)
Director, Center for Advanced Biochemistry and Molecular Biology
President, Biotecnomed, Calabrian Innovation Cluster in Life Sciences
Deputy Rector for Research and Technology Transfer
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Career

1980-86:	Medical School, University of Reggio Calabria, Italy
1986:	M.D. degree, "Magna cum laude"
1987-1992:	Post-graduate School in Internal Medicine, University of Reggio Calabria, Italy
1992:	Specialty Degree in Internal Medicine, "Magna cum Laude"
1990-1995: and	Fogarty Fellow, Laboratory of Molecular Cardiology, National Heart, Lung Blood Institute, National Institutes of Health, Bethesda, Maryland (USA)
2000 – 2002:	Assistant Professor in Biochemistry, "Magna Græcia" University of Catanzaro, School of Medicine
2002 – 2009:	Associate Professor in Molecular Biology, "Magna Græcia" University of Catanzaro, School of Medicine
2010 - Present	Full Professor in Molecular Biology, "Magna Græcia" University of Catanzaro, School of Medicine

Fellowships

1987-1992:	Fellowship from the Italian Ministry of the University and Scientific Research (MIUR)
1990-1995:	Fellowship from the Fogarty International Center, National Institutes of Health, Bethesda, Maryland (USA)

Grants and Coordination of Research Activities

1994-1996:	Principal Investigator, Telethon Project (n° 474) on the Study of the genetic basis of Familial Hypertrophic cardiomyopathy and Central Core Disease in Calabria
1995-1997:	Co-principal investigator (in collaboration with the Cardiology Department of the Federico II University of Naples) of a C.N.R project for the study of inherited cardiomyopathies
2000-2002:	Principal Investigator, of the Workpackage: "Cardiac Hypertrophy. In vivo and in vitro models" Progetto esecutivo del Ministero dell'Università e della Ricerca Scientifica e Tecnologica (Piani di potenziamento della rete scientifica e tecnologica – CLUSTER 04)
2000-2002:	Co-principal investigator (in collaboration with the Cardiology Department of the "La Sapienza" University of Rome) of a C.N.R. project for the setting of genetic/clinical database of families with inherited cardiomyopathies
2006-2007:	National and local Coordinator, PRIN project # 2006063220: Development of nanostructured platforms for early diagnosis, prognostic assessment and prediction of therapeutic response in human breast cancer.
2004-present:	Chief, Proteomics Programme and Core Facility, "Magna Græcia" University of Catanzaro, School of Medicine, Germaneto University Campus
2011-2015:	Principal Investigator, POR Project "PROMETEO": Design and development of innovative technological platforms for regenerative medicine in dentistry, hematology, neurology and cardiology.
2014-present	Principal Investicator, PON Project "iCARE: Calabrian infrastructure for regenerative medicine: settin of a bio-bank for the criopreservation of human induced pluripotent stem cells.
2017-present	Principal Investicator, PRIN 2017CH4RNP Project "Advanced proteomic approaches to identify and characterize Lin28 molecular complexes regulating mRNA recognition and translation in embryonic stem cells.

Scientific areas of interest

- Study of the electrophysiological mechanisms underlying life-threatening ventricular arrhythmias and use of magnesium sulfate in at-risk patients suffering from dilative cardiomyopathy (1987-1990)
- Study of myosin "hinge-region" in cardiac muscle contraction, with specific focus on the biological effects on contractility produced by mutations in this aminoacid region (1990-1991)
- Characterization of biological and enzymatic properties of platelet non muscle myosin and development of an "ad hoc" in vitro actin sliding motility assay (1991-1992)
- Identification of a novel endothelial factor produced in hypoxic conditions and characterization of its effects in cultured cardiomyocytes (1993)
- Study of the molecular effects of alpha- and beta-adrenergic agonists and angiotensin II on cardiac myosin isoforms in an animal model of cardiac hypertrophy (1993-1994)
- Analysis of the embrionic gene expression pattern in an animal model of hypertrophic cardiomyopathy (1996-1997)
- Analysis of the functional consequences of mutations in genes involved in the pathogenesis of familial hypertrophic cardiomyopathy (1994-present)
- Screening and identification by Single Strand Conformational Polymoprhism (SSCP), Denaturing Gradient Gel Electrophoresis (DGGE) or direct sequencing of mutations affecting the following genes in calabrian families with hypertrophoc cardiomyopathy: beta myosin heavy chains, alpha tropomyosin, cardiac troponin T, cardiac actin, myosin binding protein C (1994-present)
- Functional analysis of mutant myosin purified from cardiac or skeletal muscle of patients with hypertrophioc cardiomyopathy: determination of ATPase activity and isometric tension measurement (1994-present)
- Study of the molecular mechanisms underlying cell response to oxidative and mechanical stress; analysis of the role played by the Ras gene in the modulation of cell apoptosis produced by oxidative and hypertrophic stress.

Development of innovative strategies for the prevention of oxidative injuries in chronic/degenerative disorders (1998-present)

- Gene testing and genotype/phenotype correlation studies in calabrian families with inherited breast/ovarian cancer (2000-present)
- Study of genomic instability as predisposing factor in lung cancer (2000)
- Study of gene transcription regulatory mechanisms (2000-2001)
- Analysis of the effects of synthetic glucocorticoids on MAPK signalling in lung endothelial and epithelial cells subjected to oxidative and chemical stress (2000-present)
- Identification of molecular targets in hereditary cancer by proteomic profiling analysis (2003-present)
- Development of nanostructured devices for enrichment of the low molecular weight plasma proteome as a strategic tool for early diagnosis in clinical oncology (2005-present)
- Analysis of inherited cardiac diseases through the induced pluripotent stem cell (iPSc) approach (2012-present)

Scientific Societes

Prof. Cuda is the treasurer and secretary of the Sociatà Italiana di Biofisica e Biologia Molecolare (SIBBM)

Publications during the past three years

1: Parrotta EI, Scalise S, Scaramuzzino L, Cuda G. Stem Cells: The Game Changers of Human Cardiac Disease Modelling and Regenerative Medicine. Int J Mol Sci. 2019 Nov 16;20(22):5760. doi: 10.3390/ijms20225760. PMID: 31744081; PMCID: PMC6888119.

2: Perri AM, Agosti V, Olivo E, Concolino A, Angelis M, Tammè L, Fiumara CV, Cuda G, Scumaci D. Histone proteomics reveals novel post-translational modifications in breast cancer. Aging (Albany NY). 2019 Dec 8;11(23):11722-11755. doi: 10.18632/aging.102577. Epub 2019 Dec 8. PMID: 31816600; PMCID: PMC6932915.

3: Coluccio ML, D'Attimo MA, Cristiani CM, Candeloro P, Parrotta E, Dattola E, Guzzi F, Cuda G, Lamanna E, Carbone E, Krühne U, Di Fabrizio E, Perozziello G. A Passive Microfluidic Device for Chemotaxis Studies. Micromachines (Basel). 2019 Aug 20;10(8):551. doi: 10.3390/mi10080551. PMID: 31434220; PMCID: PMC6722731.

4: Valpapuram I, Candeloro P, Coluccio ML, Parrotta EI, Giugni A, Das G, Cuda G, Di Fabrizio E, Perozziello G. Waveguiding and SERS Simplified Raman Spectroscopy on Biological Samples. Biosensors (Basel). 2019 Mar 3;9(1):37. doi: 10.3390/bios9010037. PMID: 30832416; PMCID: PMC6468818.

5: Dorn T, Kornherr J, Parrotta EI, Zawada D, Ayetey H, Santamaria G, Iop L, Mastantuono E, Sinnecker D, Goedel A, Dirschinger RJ, My I, Laue S, Bozoglu T, Baarlink C, Ziegler T, Graf E, Hinkel R, Cuda G, Kääb S, Grace AA, Grosse R, Kupatt C, Meitinger T, Smith AG, Laugwitz KL, Moretti A. Interplay of cell-cell contacts and RhoA/MRTF-A signaling regulates cardiomyocyte identity. EMBO J. 2018 Jun 15;37(12):e98133. doi: 10.15252/embj.201798133. Epub 2018 May 15. PMID:
29764980; PMCID: PMC6003642.

6: Greco M, Arcidiacono B, Chiefari E, Vitagliano T, Ciriaco AG, Brunetti FS, Cuda G, Brunetti A. HMGA1 and MMP-11 Are Overexpressed in Human Non-melanoma Skin Cancer. Anticancer Res. 2018 Feb;38(2):771-778. doi: 10.21873/anticanres.12283. PMID: 29374701.

7: Smith JG, Aldous SG, Andreassi C, Cuda G, Gaspari M, Riccio A. Proteomic analysis of S-nitrosylated nuclear proteins in rat cortical neurons. Sci Signal. 2018 Jul 3;11(537):eaar3396. doi: 10.1126/scisignal.aar3396. PMID: 29970601; PMCID: PMC6726469.

8: Deutsch MA, Doppler SA, Li X, Lahm H, Santamaria G, Cuda G, Eichhorn S, Ratschiller T, Dzilic E, Dreßen M, Eckart A, Stark K, Massberg S, Bartels A, Rischpler C, Gilsbach R, Hein L, Fleischmann BK, Wu SM, Lange R, Krane

M. Reactivation of the Nkx2.5 cardiac enhancer after myocardial infarction does not presage myogenesis. Cardiovasc Res. 2018 Jul 1;114(8):1098-1114. doi: 10.1093/cvr/cvy069. PMID: 29579159; PMCID: PMC6279078.

9: Parrotta EI, Scalise S, Taverna D, De Angelis MT, Sarro G, Gaspari M, Santamaria G, Cuda G. Comprehensive proteogenomic analysis of human embryonic and induced pluripotent stem cells. J Cell Mol Med. 2019 Aug;23(8):5440-5453. doi: 10.1111/jcmm.14426. Epub 2019 Jun 25. PMID: 31237115; PMCID: PMC6653499.

10: Concolino A, Olivo E, Tammè L, Fiumara CV, De Angelis MT, Quaresima B, Agosti V, Costanzo FS, Cuda G, Scumaci D. Proteomics Analysis to Assess the Role of Mitochondria in BRCA1-Mediated Breast Tumorigenesis. Proteomes. 2018 Mar 27;6(2):16. doi: 10.3390/proteomes6020016. PMID: 29584711; PMCID: PMC6027205.

11: Di Sanzo M, Chirillo R, Aversa I, Biamonte F, Santamaria G, Giovannone ED, Faniello MC, Cuda G, Costanzo F. shRNA targeting of ferritin heavy chain activates H19/miR-675 axis in K562 cells. Gene. 2018 May 30;657:92-99. doi: 10.1016/j.gene.2018.03.027. Epub 2018 Mar 12. PMID: 29544765.

12: Laria AE, Messineo S, Arcidiacono B, Varano M, Chiefari E, Semple RK, Rocha N, Russo D, Cuda G, Gaspari M, Brunetti A, Foti DP. Secretome Analysis of Hypoxia-Induced 3T3-L1 Adipocytes Uncovers Novel Proteins Potentially Involved in Obesity. Proteomics. 2018 Apr;18(7):e1700260. doi: 10.1002/pmic.201700260.
PMID: 29466620.

13: Sottile R, Federico G, Garofalo C, Tallerico R, Faniello MC, Quaresima B, Cristiani CM, Di Sanzo M, Cuda G, Ventura V, Wagner AK, Contrò G, Perrotti N, Gulletta E, Ferrone S, Kärre K, Costanzo FS, Carlomagno F, Carbone E. Iron and Ferritin Modulate MHC Class I Expression and NK Cell Recognition. Front Immunol. 2019 Feb 26;10:224. doi: 10.3389/fimmu.2019.00224. PMID: 30873154; PMCID: PMC6404638.

14: De Angelis MT, Parrotta EI, Santamaria G, Cuda G. Short-term retinoic acid treatment sustains pluripotency and suppresses differentiation of human induced pluripotent stem cells. Cell Death Dis. 2018 Jan 5;9(1):6. doi: 10.1038/s41419-017-0028-1. PMID: 29305588; PMCID: PMC5849042.

15: Scumaci D, Oliva A, Concolino A, Curcio A, Fiumara CV, Tammè L, Campuzano O, Pascali VL, Coll M, Iglesias A, Berne P, Casu G, Olivo E, Ausania F, Ricci P, Indolfi C, Brugada J, Brugada R, Cuda G. Integration of "Omics" Strategies for Biomarkers Discovery and for the Elucidation of Molecular Mechanisms Underlying Brugada Syndrome. Proteomics Clin Appl. 2018 Nov;12(6):e1800065. doi: 10.1002/prca.201800065. Epub 2018 Jul 20. PMID: 29956481.

16: Malara N, Gentile F, Coppedè N, Coluccio ML, Candeloro P, Perozziello G, Ferrara L, Giannetto M, Careri M, Castellini A, Mignogna C, Presta I, Pirrone CK, Maisano D, Donato A, Donato G, Greco M, Scumaci D, Cuda G, Casale F, Ferraro E, Bonacci S, Trunzo V, Mollace V, Onesto V, Majewska R, Amato F, Renne M, Innaro N, Sena G, Sacco R, Givigliano F, Voci C, Volpentesta G, Guzzi G, Lavano A, Scali E, Bottoni U, Di Fabrizio E. Superhydrophobic lab-on-chip measures secretome protonation state and provides a personalized risk assessment of sporadic tumour. NPJ Precis Oncol. 2018 Nov 19;2:26. doi: 10.1038/s41698-018-0069-7. PMID: 30480095; PMCID: PMC6242957.

17: De Angelis MT, Santamaria G, Parrotta EI, Scalise S, Lo Conte M, Gasparini S, Ferlazzo E, Aguglia U, Ciampi C, Sgura A, Cuda G. Establishment and characterization of induced pluripotent stem cells (iPSCs) from central nervous system lupus erythematosus. J Cell Mol Med. 2019 Nov;23(11):7382-7394. doi: 10.1111/jcmm.14598. Epub 2019 Sep 19. PMID: 31536674; PMCID: PMC6815917.

18: Roperto S, Varano M, Russo V, Lucà R, Cagiola M, Gaspari M, Ceccarelli DM, Cuda G, Roperto F. Proteomic analysis of protein purified derivative of Mycobacterium bovis. J Transl Med. 2017 Apr 3;15(1):68. doi: 10.1186/s12967-017-1172-1. PMID: 28372590; PMCID: PMC5376687.

19: Trimboli F, Lucia F, Angotti E, Antico GC, Giacquinto LC, Martucci M, Mancuso S, Chirillo R, Britti D, Cuda G, Costanzo F, Palmieri C. An approach based on simulated hemolysis for establishing the hemolysis index threshold for high-sensitivity cardiac troponin T assay. Clin Chem Lab Med. 2019 Nov 26;57(12):e314-e317. doi: 10.1515/cclm-2019-0145. PMID: 31188749.

20: Aversa I, Zolea F, Ieranò C, Bulotta S, Trotta AM, Faniello MC, De Marco C, Malanga D, Biamonte F, Viglietto G, Cuda G, Scala S, Costanzo F. Epithelial-to- mesenchymal transition in FHC-silenced cells: the role of CXCR4/CXCL12 axis. J Exp Clin Cancer Res. 2017 Aug 3;36(1):104. doi: 10.1186/s13046-017-0571-8. PMID: 28774348; PMCID: PMC5543736.

21: Taverna D, Mignogna C, Santise G, Gaspari M, Cuda G. On-Tissue Hydrogel- Mediated Nondestructive Proteomic Characterization: Application to fr/fr and FFPE Tissues and Insights for Quantitative Proteomics Using a Case of Cardiac Myxoma. Proteomics Clin Appl. 2019 Jan;13(1):e1700167. doi: 10.1002/prca.201700167. Epub 2018 Nov 12. PMID: 30387291.

22: Gabriele C, Cantiello F, Nicastri A, Crocerossa F, Russo GI, Cicione A, Vartolomei MD, Ferro M, Morgia G, Lucarelli G, Cuda G, Damiano R, Gaspari M. High-throughput detection of low abundance sialylated glycoproteins in human serum by TiO₂ enrichment and targeted LC-MS/MS analysis: application to a prostate cancer sample set. Anal Bioanal Chem. 2019 Jan;411(3):755-763. doi: 10.1007/s00216-018-1497-5. Epub 2018 Nov 28. PMID: 30483857.

23: Cimadomo D, Carmelo R, Parrotta EI, Scalise S, Santamaria G, Alviggi E, De Angelis MT, Sarro G, Vaiarelli A, Venturella R, Rienzi L, Zullo F, Ubaldi FM, Cuda G. Similar miRNomic signatures characterize the follicular fluids collected after follicular and luteal phase stimulations in the same ovarian cycle. J Assist Reprod Genet. 2020 Jan;37(1):149-158. doi: 10.1007/s10815-019-01607-6. Epub 2019 Nov 7. PMID: 31701304; PMCID: PMC7000610.

24: D'Antona L, Dattilo V, Catalogna G, Scumaci D, Fiumara CV, Musumeci F, Perrotti G, Schenone S, Tallerico R, Spoleti CB, Costa N, Iuliano R, Cuda G, Amato R, Perrotti N. In Preclinical Model of Ovarian Cancer, the SGK1 Inhibitor SI113 Counteracts the Development of Paclitaxel Resistance and Restores Drug Sensitivity. Transl Oncol. 2019 Aug;12(8):1045-1055. doi: 10.1016/j.tranon.2019.05.008. Epub 2019 Jun 1. PMID: 31163384; PMCID: PMC6545392.

25: Di Cello A, Di Sanzo M, Perrone FM, Santamaria G, Rania E, Angotti E, Venturella R, Mancuso S, Zullo F, Cuda G, Costanzo F. DJ-1 is a reliable serum biomarker for discriminating high-risk endometrial cancer. Tumour Biol. 2017 Jun;39(6):1010428317705746. doi: 10.1177/1010428317705746. PMID: 28618925.

26: Parrotta EI, Lucchino V, Scaramuzzino L, Scalise S, Cuda G. Modeling Cardiac Disease Mechanisms Using Induced Pluripotent Stem Cell-Derived Cardiomyocytes: Progress, Promises and Challenges. Int J Mol Sci. 2020 Jun 19;21(12):4354. doi: 10.3390/ijms21124354. PMID: 32575374; PMCID: PMC7352327.

27: Biamonte F, Zolea F, Santamaria G, Battaglia AM, Cuda G, Costanzo F. Human haematological and epithelial tumor-derived cell lines express distinct patterns of onco-microRNAs. Cell Mol Biol (Noisy-le-grand). 2017 Nov 30;63(11):75-85. doi: 10.14715/cmb/2017.63.11.14. PMID: 29208177.

28: Guzzi F, Candeloro P, Coluccio ML, Cristiani CM, Parrotta EI, Scaramuzzino L, Scalise S, Dattola E, D'Attimo MA, Cuda G, Lamanna E, Passacatini LC, Carbone E, Krühne U, Fabrizio ED, Perozziello G. A Disposable Passive Microfluidic Device for Cell Culturing. Biosensors (Basel). 2020 Feb 29;10(3):18. doi: 10.3390/bios10030018. PMID: 32121446; PMCID: PMC7146476.

29: Fiumara CV, Scumaci D, Iervolino A, Perri AM, Concolino A, Tammè L, Petrillo F, Capasso G, Cuda G. Unraveling the Mechanistic Complexity of the Glomerulocystic Phenotype in Dicer Conditional KO Mice by 2D Gel Electrophoresis Coupled Mass Spectrometry. Proteomics Clin Appl. 2018 May;12(3):e1700006. doi: 10.1002/prca.201700006. Epub 2017 Dec 22. PMID: 29159954.

30: Parrotta E, De Angelis MT, Scalise S, Candeloro P, Santamaria G, Paonessa M, Coluccio ML, Perozziello G, De Vitis S, Sgura A, Coluzzi E, Mollace V, Di Fabrizio EM, Cuda G. Two sides of the same coin? Unraveling subtle differences between human embryonic and induced pluripotent stem cells by Raman spectroscopy. Stem Cell Res Ther. 2017 Nov 28;8(1):271. doi: 10.1186/s13287-017-0720-1. PMID: 29183402; PMCID: PMC5706396.

31: Taverna D, Mignogna C, Gabriele C, Santise G, Donato G, Cuda G, Gaspari M. An optimized procedure for on-tissue localized protein digestion and quantification using hydrogel discs and isobaric mass tags: analysis of cardiac myxoma. Anal Bioanal Chem. 2017 Apr;409(11):2919-2930. doi: 10.1007/s00216-017-0237-6. Epub 2017 Feb 11. PMID: 28190108.

32: Scumaci D, Olivo E, Fiumara CV, La Chimia M, De Angelis MT, Mauro S, Costa G, Ambrosio FA, Alcaro S, Agosti V, Costanzo FS, Cuda G. DJ-1 Proteoforms in Breast Cancer Cells: The Escape of Metabolic Epigenetic Misregulation. Cells. 2020 Aug 26;9(9):1968. doi: 10.3390/cells9091968. PMID: 32858971; PMCID: PMC7563694.

33: Hoelscher SC, Stich T, Diehm A, Lahm H, Dreßen M, Zhang Z, Neb I, Aherrahrou Z, Erdmann J, Schunkert H, Santamaria G, Cuda G, Gilsbach R, Hein L, Lange R, Hassel D, Krane M, Doppler SA. miR-128a Acts as a Regulator in Cardiac Development by Modulating Differentiation of Cardiac Progenitor Cell Populations. Int J Mol Sci. 2020 Feb 10;21(3):1158. doi: 10.3390/ijms21031158. PMID: 32050579; PMCID: PMC7038042.

34: Cianflone E, Cappetta D, Mancuso T, Sabatino J, Marino F, Scalise M, Albanese M, Salatino A, Parrotta EI, Cuda G, De Angelis A, Berrino L, Rossi F, Nadal-Ginard B, Torella D, Urbanek K. Statins Stimulate New Myocyte Formation After Myocardial Infarction by Activating Growth and Differentiation of the Endogenous Cardiac Stem Cells. Int J Mol Sci. 2020 Oct 26;21(21):7927. doi: 10.3390/ijms21217927. PMID: 33114544; PMCID: PMC7663580.