ADHIRAJ ROY

Associate Professor & Former DBT-Ramalingaswami Fellow

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Professional Summary

Accomplished and dedicated Associate Professor with over 10 years of teaching and research experience in biochemistry, molecular genetics and molecular oncology. Demonstrated excellence in curriculum development, scholarly publishing and student mentorship, with a strong commitment to fostering academic curiosity and innovation. Adept at securing research funding, leading interdisciplinary collaborations, and contributing meaningfully to institutional growth. Passionate about cultivating inclusive learning environments and advancing knowledge through impactful teaching and cutting-edge research.

Professional Preparation:

Associate Professor (November 2019-present)
Amity Institute of Molecular Medicine & Stem Cell Research,
J3/113, Amity University Noida, Sector-125, Noida, UP, India

- Principal investigator of 4 Govt.-funded research projects investigating the role of diacylglycerol-targeted kinase signalling and exosomal miRNAs in cancer.
- Led multi-personnel teams towards time-bound completion of all projects undertaken with experiences in budgetary handling and management of extramural grants.
- Mentor and supervisor of 3 Ph.D., 7 UG/PG students, Program Leader, member of student RAC/DRC and club/cultural committees.
- Developed B.Sc. (Hons) Medical Lab Technology program and extensive teaching experience in biochemistry, cell & molecular biology, genetic engineering and cancer biology.

Ramalingaswami Fellow (March 2019- October 2019)
Department of Molecular & Human Genetics,
Banaras Hindu University, Varanasi, UP, India

- Principal investigator of one Govt.-funded research projects investigating the role of diacylglycerol-targeted kinase signalling in cancer.

Senior Research Scientist (August 2018- February 2019)
TCG Life Sciences Pvt Ltd, Kolkata, WB, India

- Developed and improved high-throughput drug screening in in oncology discovery project.

Postdoctoral Associate (June 2016- July 2018)
Department of Pharmacology & Chemical Biology,
University of Pittsburgh Medical Centre, Pittsburgh, USA

- *in vitro* and *in vivo* assay development for cancer therapeutics.
- Led multi-personnel teams towards time bound completion of 2 research projects focusing on cancer therapeutics and molecular neurobiology.
- Mentored 1 Ph.D. student and 3 visiting scholars towards completion of their research objectives and fostering their development in research techniques and scientific writing.

Postdoctoral Scientist (June 2014- May 2016)
Department of Biochemistry & Molecular Genetics,
The George Washington University, Washington DC, USA

- *in vitro* and *in vivo* assay development for studying molecular mechanisms of Warburg effect in yeast and cancer cells.
- Mentored 3 PG students towards completion of their research dissertations.

Graduate Research Assistant (August 2008- May 2010)
University of Southern Mississippi, USA

Education:

Ph.D., The George Washington University, Washington DC, USA (2010-2014)

Thesis title: The Glucose Signal Transduction Pathway Mediated by the Rgt2 and Snf3 Glucose Sensors in the Budding Yeast Saccharomyces cerevisiae,
GPA: 3.55/4.00, Guide: Dr. Jeong Ho Kim,
Thesis submission and Date of defense: 18th March 2014.

Master of Science (M.Sc.), Microbiology (2005-2007)
University of Calcutta, India, Kolkata, India,
CGPA: 4.95/6.00, Grade: A+, **1st class 6th rank holder.**

GATE in Life Sciences, IIT Kanpur, 2007 (386 score, All India Rank 986 out of 10900).

Bachelor of Science (B.Sc. Hons), Microbiology (2002-2005)
University of Calcutta, India, Kolkata, India,
% of marks: 70.50, **1st class 6th rank holder.**

10+2 Board Examination (Sciences) (2002)
Jadavpur Vidyapith, Kolkata, India,
West Bengal Council of Higher Secondary Education,
% of marks: 76.90, 1st Division.

Matriculation (2000)
Jadavpur Vidyapith, Kolkata, India,
West Bengal Board of Secondary Education,
% of marks: 88.75, 1st Division.

Academic & Administrative Experience:

- **Program Leader** of B.Sc. (Hons) (Biochemistry) 2021-2024 and M.Sc. (Biochemistry, Molecular Medicine, Stem Cell & Regenerative Biology and Molecular Cancer Biology) 2025-2027 batches.
- **Member** of institutional Area Advisory Board (AAB) and Board of Studies (BOS).
- **Member** of institutional IQAC criteria VI.
- **Co-coordinator** of B.Sc Medical Laboratory Technology course.
- **Co-coordinator** of institutional Club/Cultural committee.
- **Co-coordinator** of institutional Amity Youth Festival committee.

Area of Interests:

- Cancer cell signalling and Cancer pharmacology.
- Diacylglycerol-targeted protein kinases in cancer.
- Cancer nanotheranostics, Nanomedicine and Targeted drug delivery.
- Epithelial ovarian cancer, Oral squamous cell carcinoma and Prostate adenocarcinoma.

Research Experience:

Molecular Oncology domain:

- Elucidation of molecular roles of Protein kinase D (PKD) and PKC iota/PI3K signalling axes in epithelial ovarian cancer (Amity University Noida, 2019-present).

- Synthesis, molecular docking, ADMET profiling and *in vivo* validation of novel Schiff base metal complexes for development of improved therapeutic management of prostate adenocarcinoma.
- Identification of role of PKD/Aurora kinase-A axis in neuroendocrine differentiation and G2/M cell cycle transition of prostate adenocarcinoma (University of Pittsburgh, 2016-2018).
- Deciphering molecular role of PKD in oral squamous cell carcinoma (University of Pittsburgh, 2016-2018).
- Molecular dissection of Casein kinase II (CK-II) in regulating 'Warburg effect' using budding yeast as genetic model (The George Washington University, 2014-2016).
- Development of methylglyoxal as anti-glycolytic and anti-cancer drug using budding yeast as genetic model (The George Washington University, 2014-2016).
- Understanding the molecular mechanism of glucose sensing and signalling in 'Warburg effect' using budding yeast and prostate cancer cells (PC3) as genetic models (The George Washington University, 2010-2014).
- Identification of the molecular roles of p21-activated protein kinase 1 (PAK1) and Casein kinase 2 (CK2) in prostate cancer (The George Washington University, 2010-2014).
- Studying the role of human Nucleoporin 98 (Nup98) in acute myeloid leukemia using yeast as a genetic model (University of Southern Mississippi, 2008-2010).

Molecular Neurobiology domain:

- Determination of the molecular role of Ca-Calmodulin dependent protein kinase (CamK) and novel LncRNA C2dat1/C2dat2 in cerebral ischemia (University of Pittsburgh, 2016-2018).

Others:

- Determination of the molecular role of PKD2 in scleroderma (University of Pittsburgh, 2016-2018).
- Attended a research workshop on "Plant tissue culture and genetic transformation" sponsored by University Grant Commission (UGC), India. The aim of this workshop was to teach Masters' students in various plant biotechnological techniques including micromanipulation, embryogenesis, genetic engineering in *Agrobacterium tumifaciens (*Workshop Trainee, Department of Genetics, University of Calcutta, India, 2007).
- Carried out a project involving isolation and characterization of human papilloma virus 18 (HPV18) of unknown serotype (Summer Trainee, Chittaranjan National Cancer Institute, India, 2006).

Sponsored Research:

- Therapeutic targeting of protein kinase D (PKD)/Laminin subunit 5 (LAMA5) signalling axis in high grade serous ovarian cancer (**PI**), Council of Science & Technology, Govt. of UP (15.01.2025-14.01.2028), Rs. 1436000.
- Elucidation of the role of autophagy in regulation of exosomal micro-RNA in triple negative breast cancer (**PI),** Indian Council of Medical Research (ICMR), Govt. of India (01.03.2021-28.02.2022), Rs. 947600.
- Elucidation of the role of Protein kinase D (PKD) and PI3 kinase-Protein kinase C iota (PKCí) signaling axes in refractory ovarian cancer **(PI),** Department of Biotechnology (DBT), Govt. of India (05.03.2019-04.03.2024), Rs. 4000000.
- Elucidation of the molecular role of protein kinase D (PKD) in chemoresistant epithelial ovarian cancer **(PI to ICMR-SRF)**, Indian Council of Medical Research (ICMR), Govt. of India (25.05.2022-24.052025), Rs. 1878530.

Membership of Professional Bodies:

- Indian Society of Human Genetics (ISHG ID: L/1973/2019), Life member.

- Indian Society of Cell Biology (ISCB ID: 2019014), Life member.
- Indian Association for Cancer Research (ID: LM-1046), Life member.
- American Society of Cell Biology (ASCB ID: 123552), Postdoctoral member, January 2018-December 2018.
- American Association for the Advancement of Science (AAAS ID: 60001970), Postdoctoral member, January 2018-December 2018.
- Former Fellow, Royal Society of Biology, UK (ID: P0142521).

Infrastructure Development and Professional Service:

- Developed a new lab for research in the area of cancer cell signalling, cancer therapeutics at Amity Institute of Molecular Medicine & Stem Cell Research, Amity University Noida.
- Organized EMBO Lecture Course (Tumor metabolism: Current understanding and opportunities for novel drug discovery), Amity University Noida, 28-31st March 2023.
- Organized 41st Annual conference of the Indian Association for Cancer Research (IACR), Amity University Noida, 2-5th March 2022.
- Invited reviewer of international peer-reviewed journals (selected):
  - FEBS Open Bio
  - Trends in Cell Biology
  - Trends in Microbiology
  - Trends in Molecular Medicine
  - Reviews in Oncology/Hematology
  - International Journal of Immunotherapy and Cancer Research
  - Journal of Pulmonary Medicine and Respiratory Care
  - BMC Complementary Medicine and Therapies

Professional Certification Obtained:

- Obtained Faculty Development Program certificate on "**Medical device, Pharmacovigilance & Clinical Trial Regulations for Pharma & Biotech Industries**" (2-6th June 2025, Amity University Noida

Awards and Accolades:

- **Ramalingaswami Re-entry Fellowship (2019),** Department of Biotechnology, Govt. of India.
- **Former Member,** Royal Society of Biology (UK).
- **Invited Speaker,** DBT-Interdisciplinary School of Life Sciences (ISLS), Banaras Hindu University, India, 2018.
- **Invited judge** at a poster presentation session of Biomedical Student Association Symposium, University of Pittsburgh, USA, 2017.
- **Former Member**, Unmesh Foundation NGO, India, 2002-2005.
- Completed beginner-level course on French language, Alliance François de Kolkata, Kolkata, India, 2005
- **Awarded certificate of merit** by Indian Society of Tobacco and Health for an essay competition on the subject "Smoking is injurious to health", 1999.
- **Awarded certificate of excellence** from Science Aptitude and Talent Search Test, All India Science Teachers' Association, India, 1995.
- **Awarded certificate of excellence** from Achievement cum Diagnostic Test in Mathematics, Center for Pedagogical Studies in Mathematics, India, 1994.

Teaching Experience:

- ***Faculty, Amity University Noida:***
  - ***Undergraduate courses taught (B.Sc. Biochemistry (Hons/Hons with Research) program)***
    - Genetics and Inheritance (2019-2021)
    - Fundamentals of Molecular Biology (2019-2021)
    - Cell, Molecular Biology & Genetic Engineering (2019-present)
    - Molecular Biology, Bioinstrumentations and Biotechniques (2019-present)
    - Molecular & Clinical Diagnostics (2021-present)
    - Medical Microbiology & Diseases (2021-present)
  - ***Undergraduate courses taught (B.Sc. Medical Laboratory Technology program)***
    - Molecular & Clinical Diagnostics (2023-present)
    - Advanced Clinical Microbiology (2025-present)
  - ***Undergraduate courses taught (B.Sc. Biomedical Science (Hons with Research) program)***
    - Biology & Chemistry of Cell (2024-present)
    - Fundamentals of Microbiology (2024-present)
  - ***Postgraduate courses taught (M.Sc. Molecular Medicine & M.Sc. Stem Cell & Cancer Biology program)***
    - Medical Genetics and Cytogenetics (2019-present)
    - Genome Engineering & Editing (2019-present)
    - Animal Cell Culture & Cell Engineering (2019-present)
    - Biomarkers & Molecular Diagnostics (2019-present)
    - Microbiology in Human Health (2019-present)
    - Instrumentation in Biomedicine (2019-present)
    - Molecular Diagnostics & Targeted Therapy (2019-present)
    - Molecular Basis of Diseases (2019-present)
  - ***Postgraduate courses taught (M.Sc. Biochemistry program)***
    - Medical Genetics and Cytogenetics (2024-present)
    - Molecular Biology & Genetics (2024-present)
    - Cellular Metabolism & Bioenergetics (2024-present)
    - Instrumentation in Biomedicine (2024-present)
    - Proteins & Enzymes (2024-present)
    - Molecular Basis of Diseases (2024-present)
    - Understanding of Basics of Research Methodology (2025-present)
  - ***Ph.D. courses taught***
    - Trends in Molecular Oncology (2023-present)
    - Advances in Molecular Medicine (2023-present)

- ***Ramalingaswami Fellow, Banaras Hindu University:***
  - ***Integrated M.Phil./Ph.D. program***
    - Advances in Biochemistry (2019)

- ***Teaching Assistant, University of Southern Mississippi:***
    - Anatomy and Physiology laboratory, Department of Biological Sciences (BSC 250 and BSC 251, University of Southern Mississippi, USA (January 2009-May 2009),

Dissertation Supervision:

- ***PhD advisee: Thesis submitted: 01, Ongoing: 04***
  - Ms. Komal Tyagi (Thesis title: Role of protein kinase D and phosphoinositide 3-kinase signalling axis in pathogenesis of ovarian cancer, **Guide**, **Thesis submitted**).

- Ms. Abha Sachdeva (Thesis title: Study of protein kinase D-Aurora kinase A signalling axis in Neuroendocrine differentiated epithelial ovarian cancer cells, **Guide, Ongoing**).
- Mr. Abdul Wasai (Thesis title: Therapeutic potential of mononuclear Zn II Schiff-based azido compound(s) in prostate adenocarcinoma, **Guide, Ongoing**).
- Ms. Shriya Mattoo (Thesis title: Targeted peptide- based liposomal delivery of Hsp90-suppressing miRNA mimics/ antagomiRs as potential therapeutics for breast cancer, **Co-Guide, Ongoing).**
- Ms. Muskaan Arora (Thesis title: Screening and biological evaluation of benzyl thiocyanate derivatives for identifying potential therapeutics for breast cancer, **Co-Guide, Ongoing**).

- ***UG/PG advisee: Thesis submitted: 08, Ongoing: 01***
  - Ms. R Shweta (B.Sc. (Hons) Biochemistry, 2023. Thesis title: "Drug Repurposing for COVID-19 (XBB.1.5 COVID Variant", **Submitted)**
  - Ms. Kusum Dhankad (B.Sc. (Hons) Biochemistry, 2024, Thesis title: "Clinical Trials", **Submitted**)
  - Mr. Aaron Shaji Chirayil (B.Sc. (Hons) Biochemistry, 2024, Thesis title: Role of protein kinase D in prostate adenocarcinoma", **Submitted**)
  - Ms. Leesha Agarwal (B.Sc. (Hons/Hons. Biochemistry, 2025, Thesis title: "CAR-T cell therapy and gene therapy for conditions like thalassemia and sickle cell disease", **Submitted**)
  - Ms. Sunbul Ahmed (M.Sc. Molecular Medicine, 2024, Thesis title: "Deciphering chemoresistance mechanisms in ovarian cancer", **Submitted**)
  - Ms. Sunbul Ahmed (M.Sc. Molecular Medicine, 2024, Thesis title: "In silico analysis and in vitro validation of gene expression patterns in ovarian cancer", **Submitted**)
  - Ms. Aditi Raj (M.Sc. Clinical Embryology, 2025, Thesis title: "To study the implantation capability of grade B embryo in comparison to grade A embryo", **Submitted**)
  - Ms. Megha Biyani (B.Sc. (Hons) Biochemistry, 2026, Thesis title: "Nano based therapeutics for the management of non-small cell lung cancer: an *in silico* and in vitro study" **Submitted**)

Conference/Poster Presentation/Attendance:

1. Wasai A, **Roy A,** Therapeutic potential of mononuclear copper-based isothiocyanato compound (complex 1) in prostate adenocarcinoma. 42nd Annual conference of the Indian Association for Cancer Research (IACR), Tata Memorial Centre (ACTREC), Navi Mumbai, India, 12-16th January 2023
2. Wasai A, **Roy A,** Therapeutic potential of mononuclear copper-based isothiocyanato compound (complex 1) in prostate adenocarcinoma. EMBO Lecture Course (Tumor metabolism: Current understanding and opportunities for novel drug discovery), Amity University Noida, 28-31st March 2023
3. Sachdeva A, **Roy A,** Molecular characterization of neuroendocrine differentiation of epithelial ovarian cancer. EMBO Lecture Course (Tumor metabolism: Current understanding and opportunities for novel drug discovery), Amity University Noida, 28-31st March 2023
4. Wasai A, **Roy A,** Therapeutic potential of mononuclear copper-based isothiocyanato compound (complex 1) in prostate adenocarcinoma. 7th International conference on translational research (ICTR), AIIMS, New Delhi, India, 16-18th October 2023
5. Sachdeva A, **Roy A,** Molecular characterization of neuroendocrine differentiation of epithelial ovarian cancer. 7th International conference on translational research (ICTR), AIIMS, New Delhi, India, 16-18th October 2023
6. Tyagi K, **Roy A**, Protein kinase D drives carcinogenesis of the ovary via Runx2/ERK1/2 signalling axis. 7th International conference on translational research (ICTR), AIIMS, New Delhi, India, 16-18th October 2023

7. Sachdeva A, **Roy A,** Study of protein kinase D/Aurora kinase A signalling axis in neuroendocrine differentiated epithelial ovarian cancer cells. 41st Annual conference of the Indian Association for Cancer Research (IACR), Amity University Noida, 2-5th March 2022
8. Tyagi K, **Roy A,** Protein kinase D/Runx2 signalling axis as a novel therapeutic target against epithelial ovarian cancer, 41st Annual conference of the Indian Association for Cancer Research (IACR), Amity University Noida, 2-5th March 2022
9. Wasai A, **Roy A,** Therapeutic potential of mononuclear copper-based isothiocyanato compound S14 in prostate adenocarcinoma. International conference on role of molecular chemistry in drug design and development, Amity University Noida, 29-30th June 2022
10. 10th DBT-Ramalingaswami Conclave, National Brain Research Center, India (2019)
11. **A. Roy** and J. Kim. Mth1 regulates the interaction between the Rgt1 repressor and the Ssn6-Tup1 corepressor complex by modulating PKA-dependent phosphorylation of Rgt1. Poster presentation delivered at the Experimental Biology (EB) Meeting, Boston, MA, USA, March 2015
12. **A. Roy** and J. Kim. Endocytosis and Vacuolar Degradation of the Yeast Cell Surface Glucose Sensors Rgt2 and Snf3. Poster presentation delivered at the American Society of Cell Biology (ASCB) Meeting, Philadelphia, PA, USA, December 6-10, 2014
13. Kristine A. Wilis, Thomas D. Bufford, Nayan J. Sarma, Kellie E. Barbara, **Adhiraj Roy** & George M. Santangelo. Simultaneous measurement of expression and nuclear position of genes in individual cells. Poster presentation delivered at the XVIth Annual Southeast Regional Yeast Meeting (SERYM), Nashville, TN, USA, 29th March 2009-31st March 2009.

Patents:

"**A nano-formulated Zinc (II) trinuclear complex for targeted prostate cancer therapy and method thereof", Roy A,** Nagpal K, Wasai A (Provisional, Application No: 202411059070, TEMP/E-1/68049/2024-DEL), 2024

Publications:

Journal Articles:

1. Tyagi K, Jain P, Mandal S, **Roy A***. Deciphering the transcriptional alterations in high grade serous ovarian cancer upon catalytic inactivation of protein kinase D. Int J Biol Macromol. 2025 June, Volume 319, Part 1, 145234, doi: https://doi.org/10.1016/j.ijbiomac.2025.145234. PMID: 40057070 (***Corresponding author, IF: 8.5).**
2. Tyagi K, **Roy A***, Mandal S. Protein kinase C iota promotes glycolysis via PI3K/AKT/mTOR signalling in high grade serous ovarian cancer. Mol Biol Rep. 2024 Sep 14;51(1):983. doi: 10.1007/s11033-024-09918-3. PMID: 39276277 (***Corresponding author, IF: 3.01).**
3. Das S, Sen B, Sarkar S, Das I, Sepay N, Paul S, Mandal S, **Roy A**, Malecka M, Abbas JS, Gangavarapu RR, Vijaykumar B, Ali, IS. Design, Synthesis, and Characterization of Polyoxotungstate-Decorated Ionic Liquid–Based Hybrid Material, $[BmIm]_4[SiW_{12}O_{40}]$ toward Rapid Adsorption of Dye and Antibacterial Activities. Inorg Chem. September 2024. 63(39):18448-18467 https://doi.org/10.1021/acs.inorgchem.4c01765. PMID: 39284795 **(IF: 4.66).**
4. Sachdeva A, **Roy A***, Gupta MK, Mandal S. Pharmacological inhibition of protein kinase D2/Aurora kinase A signalling axis suppresses G2/M cell cycle progression and proliferation of epithelial ovarian cancer cells. Pathol Res Pract. June 12;260:155390. doi: 10.1016/j.prp.2024.155390. PMID: 38878668 (***Corresponding author, IF: 3.53).**
5. Sachdeva A, **Roy A***, Mandal S. Protein kinase D2-Aurora kinase A-ERK1/2 signalling axis drives neuroendocrine differentiation of epithelial ovarian cancer. Mol Cell Biochem. 480(1):535-547, 10.1007/s11010-024-04986-2, April 2024, PMID: 38557789 (***Corresponding author, IF: 3.7).**
6. Barua M, Bandyopadhyay S, Wasai A, Ghosh M, Roy I, Ghosh P, Koner S, Rizzoli C, **Roy A***, Saha S, Mandal S. A trinuclear Zn (II) schiff base dicyanamide complex attenuates bacterial biofilm formation by ROS generation and membrane damage and exhibits anticancer activity. Microb Pathog.

https://doi.org/10.1016/j.micpath.2024.106548, January 2024, 188. PMID: 38262493 (*Corresponding author, IF: 3.5).

7. Tyagi K, **Roy A***, Mandal S. Pharmacological inhibition of protein kinase D suppresses epithelial ovarian cancer via MAPK/ERK1/2/Runx2 signalling axis. Cell Signal. 2023 Oct:110:110849. https://doi.org/10.1016/j.cellsig.2023.110849, August 2023, PMID: 37562720 (***Corresponding author, IF: 3.7).**
8. Biswas S, Wasai A, Ghosh M, Rizzoli C, **Roy A***, Saha S, Mandal S. A mononuclear N,N,N,O donor Schiff base Cu (II) complex inhibits bacterial biofilm formation and promotes apoptosis and cell cycle arrest in prostate cancer cells. J Inorg Biochem. 247:112314. https://doi.org/10.1016/j.jinorgbio.2023.112314, July 2023, PMID: 37478779 (***Corresponding author, IF: 4.16**).
9. **Roy A***, Chauhan S, Bhattacharya S, Jakhmola V, Tyagi K, Sachdeva A, Wasai A, Mandal S. Runt-related transcription factors in human carcinogenesis: a friend or foe? J Cancer Res Clin Oncol. 2023 Sep;149(11):9409-9423. https://doi.org/10.1007/s00432-023-04769-0, PMID: 37081242 (***Corresponding author, IF: 4.32**).
10. **Roy A**, Prasad S, Chen Y, Chao Y, Liu Y, Zhao J, Wang QJ. Protein kinase D2 and 3 promote prostate cancer cell bone metastasis by positively regulating Runx2 in a MEK/ERK1/2-dependent manner. Am J Pathol. 2023 Feb 3; 193(5):624-637, S0002-9440(23)00036-6.doi: 10.1016/j.ajpath.2023.01.004. PMID: 36740185 **(IF: 6.0).**
11. Chen L, Zhao J, Chao Y, **Roy A**, Guo W, Qian J, Xu W, Domsic RT, Lafyatis R, Lu B, Deng F, Wang QJ. Loss of Protein Kinase D2 Activity Protects Against Bleomycin-Induced Dermal Fibrosis in Mice. Lab Invest. 2023 Feb;103(2):100018. doi: 10.1016/j.labinv.2022.100018. Epub 2023 Jan 10. PMID: 37039152 **(IF: 5.0).**
12. Mandal S, Bandyopadhyay S, Tyagi K, **Roy A***. Human microbial dysbiosis as driver of gynecological malignancies. Biochimie. 2022 Feb 14;197:86-95. doi: 10.1016/j.biochi.2022.02.005. PMID: 35176353 (**IF: 3.0**. ***Corresponding author).**
13. Mandal S, Bandyopadhyay S, Tyagi K, **Roy A***. Recent advances in understanding the molecular role of phosphoinositide-specific phospholipase C gamma 1 as an emerging onco-driver and novel therapeutic target in human carcinogenesis. Biochim Biophys Acta Rev Cancer. 2021 Aug 21; 1876(2): 188619. https://doi.org/10.1016/j.bbcan.2021.188619. PMID: 34454048 (**IF: 8.92**. ***Corresponding author).**
14. Tyagi K, Mandal S, **Roy A***. Recent advancements in therapeutic targeting of the Warburg effect in refractory ovarian cancer: A promise towards disease remission. Biochim Biophys Acta Rev Cancer. 2021 May 7;1876(1):188563. doi:10.1016/j.bbcan.2021.188563. PMID: 33971276 (**IF: 8.92**. ***Corresponding author).**
15. Tyagi K, **Roy A***. Evaluating the current status of protein kinase C (PKC)-protein kinase D (PKD) signalling axis as a novel therapeutic target in ovarian cancer. Biochim Biophys Acta Rev Cancer. 2020 Dec 28;1875(1):188496. doi: 10.1016/j.bbcan.2020.188496. PMID: 33383102 (IF: **8.92**. ***Corresponding author).**
16. **Roy A***, Narayan G. Oncogenic potential of nucleoporins in non-hematological cancers: recent update beyond chromosome translocation and gene fusion. J Cancer Res Clin Onco. 2019 Oct 25. 145(12), 2901-2910. PMID: 31654122 (IF: **4.32**. ***Corresponding author).**
17. **Roy A**, Veroli MV, Prasad S, Wang QJ. Protein Kinase D2 Modulates Cell Cycle by Stabilizing Aurora A Kinase at Centrosomes. Mol Cancer Res. 2018 Nov;16(11):1785-1797. doi: 10.1158/1541-7786.MCR-18-0641. Epub 2018 Jul 17. PMCID: PMC9923726 (**IF: 6.333**).
18. Ye J, Das S, **Roy A**, Wei W, Huang H, Lorenz-Guertin JM, Xu Q, Jacob TC, Wang B, Sun D, Wang QJ. Ischemic Injury-Induced CaMKIIδ and CaMKIIγ Confer Neuroprotection Through the NF-κB Signaling Pathway. Mol Neorobiol. 2019 Mar;56(3):2123-2136. doi: 10.1007/s12035-018-1198-2. Epub 2018 Jul 11. PMID: 29992531 (IF: **5.59**).
19. **Roy A**, Ye J, Deng F, Wang QJ. Protein kinase D signaling in cancer: A friend or foe?. Biochim Biophys Acta Rev Cancer. 2017 Aug;1868(1):283-294. doi: 10.1016/j.bbcan.2017.05.008. Epub 2017 May 31. PMID: 28577984 (IF: **8.92**).
20. **Roy A**, Wang QJ. Protein Kinase D: A Potential Therapeutic Target in Prostate Cancer. Mol Cell Pharmacol. 2017; 9(1):1-4. PMCID: PMC8580385 (IF: **1.5**).

21. **Roy A**, Hashmi S, Li Z, Dement AD, Cho KH, Kim JH. The glucose metabolite methylglyoxal inhibits expression of the glucose transporter genes by inactivating the cell surface glucose sensors Rgt2 and Snf3 in yeast. Mol Biol Cell. 2016 Mar 1;27(5):862-71. doi: 10.1091/mbc.E15-11-0789. PMID: 26764094 (IF: **3.612**).
22. Kim YB, Shin YJ, **Roy A**, Kim JH. The Role of the Pleckstrin Homology Domain-containing Protein CKIP-1 in Activation of p21-activated Kinase 1 (PAK1). J Biol Chem. 2015 Aug 21;290(34):21076-85. doi: 10.1074/jbc.M115.675124. Epub 2015 Jul 9. PMID: 26160174 (IF: **5.49**).
23. **Roy A**, Dement AD, Cho KH, Kim JH. Assessing glucose uptake through the yeast hexose transporter 1 (Hxt1). *PLoS One*. 2015 Mar 27;10(3):e0121985. doi: 10.1371/journal.pone.0121985. eCollection 2015. PMID: 25816250 (**IF: 2.6**).
24. **Roy A**, Kim YB, Cho KH, Kim JH. Glucose starvation-induced turnover of the yeast glucose transporter Hxt1. Biochim Biophys Acta. 2014 Sep;1840(9):2878-85. doi: 10.1016/j.bbagen.2014.05.004. Epub 2014 May 9. PMID: 24821015 (**IF: 2.8**).
25. **Roy A**, Jouandot D 2nd, Cho KH, Kim JH. Understanding the mechanism of glucose-induced relief of Rgt1-mediated repression in yeast. *FEBS Open Bio*. 2014 Jan 3;4:105-11. doi: 10.1016/j.fob.2013.12.004. eCollection 2014. PMID: 24490134 (**IF: 2.793**).
26. Shin YJ, Kim EH, **Roy A**, Kim JH. Evidence for a novel mechanism of the PAK1 interaction with the Rho-GTPases Cdc42 and Rac. *PLoS One*. 2013 Aug 1;8(8):e71495. doi: 10.1371/journal.pone.0071495. Print 2013. PMID: 23936510 (**IF: 2.8**).
27. Kim JH, **Roy A**, Jouandot D 2nd, Cho KH. The glucose signaling network in yeast. Biochim Biophys Acta. 2013 Nov;1830(11):5204-10. doi: 10.1016/j.bbagen.2013.07.025. Epub 2013 Aug 2. PMID: 23911748 (**IF: 2.8**).
28. **Roy A**, Shin YJ, Cho KH, Kim JH. Mth1 regulates the interaction between the Rgt1 repressor and the Ssn6-Tup1 corepressor complex by modulating PKA-dependent phosphorylation of Rgt1. Mol Biol Cell. 2013 May;24(9):1493-503. doi: 10.1091/mbc.E13-01-0047. Epub 2013 Mar 6. PMID: 23468525 (**IF: 3.612**).
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