

# Dr. Nilanjana Basu

M.D. (HOM), PhD (Cellular & Molecular Oncology)

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## Objective

To spread awareness about homoeopathic system of medicine among masses and to understand other fields of medicine and research so that an integrated approach can be established for the benefit of ailing patients. To play a key role in exploring the therapeutic curative power of the medicines by conducting research work utilizing the medical knowledge and literature. I look forward for dedicating myself in healthcare research and innovation through an institution where my experience and administrative skills could be utilized for serving the humanity.

## Summary

A homoeopathic physician turned scientist having professional experience of over 23 years, which is the summation of clinical, teaching and administrative responsibilities. Was **Former Vice-Principal** and **Post Graduate In-charge** with Bakson Homoeopathic Medical College & Hospital, Greater Noida. Have research experience for 8 years as Research Associate in **Amity Institute of Molecular Medicine & Stem Cell Research** and as Faculty in **Amity Institute of Indian System of Medicine, Amity University**. A wide exposure to various domains in education and healthcare including key involvement in college, hospital administration and management activities, undergraduate and post-graduate education, OPD/IPD assignments, among all other supplemental activities. Have served as **CCH inspector** and **External Examiner** with various Universities across the Nation. This varied experience has enabled me with a 360-degree view of these domains with practical experience which are integral in running a premier medical institute/hospital and research institute.

The edge of my experience is further sharpened through the **on-campus PhD** programme in **Cellular and Molecular Oncology**, from the premiere and prestigious institute, **Amity Institute of Molecular Medicine & Stem Cell Research, Amity University Uttar Pradesh, NOIDA**. All these areas including education, administration, clinical skill and research give me a unique recognition in homoeopathy.

## Professional Experience

S. no	Category	Experience	Period
1.	<p><b>Associate Professor,</b> Amity Institute of Indian System of Medicine &amp; Amity Institute of Molecular Medicine &amp; Stem Cell Research</p> <p><b>PhD Co-ordinator</b></p> <p><b>Research Co-ordinator</b></p> <p><b>Stream Co-ordinator</b></p>	<ul style="list-style-type: none"> <li>• Teach the graduate and post-graduate students in the followings:               <ul style="list-style-type: none"> <li>○ BSc Yoga- Genetics and Molecular aspects of Yoga</li> <li>○ BSc Yoga- Human biology in Yoga</li> <li>○ BSc Yoga- Integrative Biomolecule in Yoga</li> <li>○ BOT – General Surgery</li> <li>○ MSc Yoga- Cognitive &amp; Higher Consciousness</li> <li>○ MSc- Stem Cell Biology</li> <li>○ MSc- Developmental Biology and Stem Cell Physiology</li> <li>○ MPH- AYUSH in Public Health</li> </ul> </li> <li>• To promote onboarding of the PhD scholars, providing information about the framework of the PhD programme, and to facilitate an engaged academic PhD environment in the department.</li> <li>• Monitors the progress of research activities; develops and maintains records of research activities, and prepares periodic and ad hoc reports, as required by investigators, administrators, funding agencies, and/or regulatory bodies.</li> <li>• Developed new stream for medical courses in the university, COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM)</li> </ul>	<p><b>July 2023 – present</b></p>
2.	<p><b>Research Associate</b> Amity Institute of Molecular Medicine &amp; Stem Cell Research</p>	<ul style="list-style-type: none"> <li>• To plan and conduct research</li> <li>• Providing statistical and analytical support</li> <li>• Providing research inputs</li> </ul>	<p><b>Aug 2018 – June 2023</b></p>
3.	<p><b>Junior Research Fellow</b> Central Council for Research in Homoeopathy</p>	<ul style="list-style-type: none"> <li>• Conduct research on the project in collaboration by Amity Institute of Molecular Medicine &amp; Stem Cell Research titled <b>“In Vitro Approaches to Investigate the Efficacy and Mechanism of Action of Homeopathic Medicines against Hormone Dependent and Independent Breast and Prostate Cancer”</b></li> </ul>	<p><b>Aug 2017 – Nov 2017</b></p>

4.	<b>Vice Principal</b> Bakson Homoeopathic Medical College & Hospital Greater Noida	<ul style="list-style-type: none"> <li>• Organising and conducting clinical and theoretical classes</li> <li>• Periodic staff meetings and reviews</li> <li>• Key contributor in Management Review meetings</li> <li>• Planning and implementation for various key initiatives</li> <li>• Faculty Roster for Theoretical and Clinical Classes.</li> <li>• Conducting Clinical and Viva Exams.</li> <li>• Coordinator Apex Committee of Hospital for Quality</li> <li>• Review of Patient Feedbacks</li> <li>• Quality Improvement Trainings</li> <li>• Rostering and scheduling</li> <li>• Quality Indicators</li> <li>• Academic Coordinator</li> <li>• Departmental Meetings</li> <li>• Patient/ attendant problem redressals</li> <li>• Committee Meetings</li> <li>• Coordination with the Consultants for smooth functioning of OPD/IPD</li> <li>• Team Management and scheduling</li> </ul>	<b>July 2015 till Aug 2016</b>
5.	<b>Consultant &amp; Faculty-</b> Bakson Homoeopathic Medical College & Hospital Greater Noida	<ul style="list-style-type: none"> <li>• <b>Professor, Department of Surgery</b></li> <li>• <b>Associate Professor, Department of Surgery</b></li> <li>• <b>Assistant Professor, Department of Surgery</b></li> <li>• <b>Post-graduate teaching in Research Methodology &amp; Biostatistics</b></li> <li>• <b>Post-graduate teaching in Repertory</b></li> </ul>	<b>Sept 2004 – Aug 2016</b>
6.	Other Administrative posts	<ul style="list-style-type: none"> <li>• <b>Hostel Superintendent</b>, Bakson Homoeopathic Medical College, Greater Noida</li> <li>• <b>Post Graduate Incharge</b>, Bakson Homoeopathic Medical College, Greater Noida</li> <li>• Third year <b>Class Counsellor</b>, Bakson Homoeopathic Medical College, Greater Noida</li> </ul>	Sept. 2014- Aug 2016  May 2015- Aug 2016  2005- 2013
7.	Other Professional experiences	<ul style="list-style-type: none"> <li>• Visiting Physician in Shree Vishudanand Hospital and Research Centre, Kolkata</li> <li>• Visiting Physician in Sri Aurobinda Seba Trust, Kolkata</li> </ul>	2003-04  2003-04

## Expertise Areas

Clinical practice in managing post treatment morbidity in cancers | Palliative medicine | Research in Cancer biology | Research in Molecular homoeopathy | Strategic Planning & Implementation | Budgeting| Leadership & Management | Curriculum & Instruction Program Design & Implementation | Evaluation & Assessment | Policy Development & Implementation | Operations Oversight Staff Training & Development | Team Leadership | Relationship Management | Public Outreach | Community Relations Educational Leadership | Staff Evaluation | Data-Driven Decision-Making | Performance Metrics & Measures.

## Education

Degree	Specialization	University/Board	Year	Result
PhD	Cellular & Molecular Oncology	Amity Institute of Molecular Medicine & Stem Cell Research, Amity University	Sept 2023	PhD Awarded
MD (Hom.)	Repertory	Dr. Bhim Rao Ambedkar University, Agra	Sept 2013	Pass
BHMS	General	Calcutta University, Kolkata	Jul 2001	63 %
Higher Secondary	Phy, Chem, Biology, Maths, Eng, Bengali	CBSE 12 <sup>th</sup> standard, Khalsa Model Senior Secondary School, Kolkata	Mar 1995	72%
Matriculation	Science	CBSE 10 <sup>th</sup> standard, Thriveni Academy, Chennai	Mar 1993	73.2%

## Registrations

- **State registration**, Board of Homoeopathic System of Medicine, New Delhi, No. BHSD-5209
- **Central registration**, Central Council of Homoeopathy, New Delhi, No. 4235 Dated: 4 July 2013

## Projects

Title of the project	Funding agency	Grant amount	Time period	Role	Status
Deciphering cancer prevention and therapeutic efficacy of selected homoeopathic medicines in cervical cancer and unravelling the molecular mechanism(s) involved	CCRH	1.12 Cr	3 years	Principal Investigator	Ongoing
Establishing efficacy of selected homoeopathic medicines against breast cancer using <i>in vitro</i> and <i>in vivo</i> mice model	SBL Pvt. Ltd.	46.23 Lacs	3 years	Principal Investigator	Ongoing

## Scopus & WOS Publications

Authors	Title, Journal	Year
Kakkar S, N Basu, Kumar U, Sharma V, Jaiswal G	Immediate Effect of Pranayama on Pulmonary Function in Healthy Adults: An Experimental Study  Advances in Mind-body Medicine	2025
Kakkar S, N Basu, Sharma V, Jaiswal G	The Role of Yoga in Mitigating Pulmonary Function and Psychological Decline Due to Air Pollution: A Randomized Controlled Trial in Delhi-NCR  Advances in Mind-body Medicine	2025
Basu N, Tandon S	Protocol Standardization of Homeopathic Medicines' Preparation and Dosing for Experimental Model Systems <i>In Vitro</i> ,  Homeopathy, Thieme Medical Publishers	2024
Basu N, Tandon C, Tandon S,	Anti-Epithelial-Mesenchymal Transition Property of Arnica montana Attributed to Mitochondria-Mediated Apoptosis in Triple Negative Breast Cancer,  Biointerface Research in Applied Chemistry	2023
Basu N, Garg M, Tandon C, Das BC, Tandon S,	Highly Diluted Homeopathic Arsenic Trioxide Induces Cell Cycle Arrest, Apoptosis and Inhibits Epithelial Mesenchymal Transition in Hormone Dependent MCF7 Breast Cancer Cells,  Homeopathy, Thieme Medical Publishers	2022
Basu N, Narad P, Guptasarma ML, Tandon C, Das BC, Tandon S,	Computational and in vitro approaches to elucidate the anti-cancer effects of Arnica montana in hormone dependent breast cancer,  Homeopathy, Thieme Medical Publishers	2022
Basu N, Das BC, Tandon S.	Interim Management of COVID-19 by Repurposed Homeopathic Medicines.  Homeopathy, Thieme Medical Publishers	2020
Basu N	Homoeopathy survived the test of time.  Homeopathy, Thieme Medical Publishers	2020
Basu N	Homoeopathic treatment leading to a unique response in a patient with renal cell carcinoma.  Integrative Medicine Case Reports	2020

Basu N	Usefulness of the homeopathic repertory in the management of chronic suppurative otitis media.  International Journal of High Dilution Research	2015
Basu N, Garg M, Tandon C, Das BC, Tandon S	P53-independent downregulation of hTERT protein expression induces senescence in triple negative breast cancer cells as a result of potentized <i>Arnica montana</i> treatment	Under preparation
Basu N, Garg M, Tandon C, Das BC, Tandon S	<i>Arnica montana</i> induces DNA damage-associated senescence and apoptosis in MDA MB231 cells via the ROS-dependent p53 signalling pathway	Under preparation

### **Other Publications on Case Studies**

- Published a Case of Renal Failure published in Advent of Homoeopathy, Vol.22, No.4, 2005
- Published a Case of CRF published in Homoeopathic Heritage
- Published a Case of Allergic Rhinitis published in HomoeoBuzz March' 09
- Published article on Uncommon symptoms of common medicines in Homoeo Buzz, Vol.4. No. 6, June 2009
- Published paper in the proceedings on A case of Acute Otitis Media in 19<sup>th</sup> International Conference organised by Asian Homoeopathic Medical League, Delhi, 2010
- Published a case of Hydrocele in Homoeopathic Heritage
- Polycystic kidneys (synonym: Congenital polycystic kidneys) "A Rare Disease published in Hpathy Ezine, January 2011
- Published a case of Hydrocele in Hpathy Ezine, August 2011
- Published short communication on Usefulness of the homeopathic repertory in the management of chronic suppurative otitis media in International Journal of High Dilution Research, Vol. 14. No. 1, 2015

## Research paper presentations

Name of all the Author(s) in the sequence as mentioned in the publication	Title of the Research Paper	Name of Conference
N Basu (Invited speaker)	Bench to bedside: Translating preclinical studies to homoeopathic cancer therapy	WHD 2025, Gandhinagar, Gujarat
N Basu, M Garg, C Tandon, BC Das, S Tandon	The anticancer impact of <i>Arsenicum album</i> on hormone-dependent breast cancer cells	5 <sup>th</sup> International Global Cancer Consortium Conference 2025, New Delhi
N Basu, M Garg, C Tandon, BC Das, S Tandon	The Anticancer Potential of Arsenicum Album Against Hormone-Dependent Breast Cancer Cells	WHD 2024, New Delhi
N Basu, C Tandon, S Tandon	The Anti-Epithelial-Mesenchymal Transition Property of <i>Arnica montana</i> in Triple-Negative Breast Cancer is Linked to Mitochondria-Mediated Apoptosis	INCD 2024, Panjab University, Chandigarh
N Basu, BC Das, S Tandon	Combining <i>in vitro</i> and <i>in silico</i> approaches to understand the anticancer effects of <i>Arnica montana</i>	AYUSH DUBAI 2024. Dubai
N Basu, BC Das, S Tandon	Anticancer effect of <i>Arsenicum album</i> in hormone-dependent breast cancer	ICTR 2023, AIIMS, New Delhi
N Basu, ML Guptasarma, BC Das, S Tandon	Cytotoxic and anti-proliferative property of <i>Asterias rubens</i> in hormone-dependent breast cancer cells	IACR-2022, Amity Institute of Molecular Medicine & Stem Cell Research, NOIDA
N Basu, ML Guptasarma, BC Das, S Tandon	Synergistic effects of <i>Arnica montana</i> and cisplatin on MCF7 human breast cancer cell line	10th APOCP General Assembly & Conference, Tehran 2020
N Basu, ML Guptasarma, BC Das, S Tandon	Anti-Epithelial-Mesenchymal-Transition property of <i>Arnica montana</i> attributed to Mitochondria-mediated Apoptosis	LMHI Colloquium 2021, Online
N Basu, M Garg, ML Guptasarma, BC Das, S Tandon	<i>Arnica montana</i> displays differential cytotoxic and anti-proliferative effects on breast cancer cells vis-a-vis normal cells	International conference on Integrative Oncology, Kochi
N Basu, M Garg, BC Das, S Tandon	Ultra-high diluted Arsenic trioxide displays no cytotoxicity towards normal breast epithelial cells	World AYUSH Expo, Mumbai

## Clinical case presentations

- **Role of Nux vomica in Post-operative case with adverse effects of chemotherapy in Adenocarcinoma of rectum, presented at the 73<sup>rd</sup> Congress of the Liga Medicorum Homeopathica Internationalis, 2018, Cape town**
- **Invited AYUSH speaker** for the topic Homoeopathic Clinical Oncology organized by Tamil Nadu Homoeopathy Medical Council, Chennai on 11<sup>th</sup> April 2018
- **Presented Paper on Clinical Analysis of Rhustoxicodenron a retrospective study in Almaty, Kazakstan, Sept. 2017**
- **Presented Paper on A Case of Bilateral Renal Cell Mass- Management by Homoeopathic medicines in the 72<sup>nd</sup> International Conference of LMHI, Leipzig, Germany, 2017.**
- Presented Paper on Utility of Repertories in Management of CSOM in the International Convention on World Homoeopathy Day, Vigyan Bhawan, New Delhi, 2016
- Participated in World Homoeopathy Summit on Research Advances in Scientific Research, organised by Global Homoeopathy Foundation, Mumbai, 2015
- Presented talk on Essentials of Clinical Diagnosis in Ear Diseases in CME organised by Indian Institute of Homeopathic Physicians, Delhi State Branch, 2014
- Presented Paper on Homoeopathy in healing advanced pathologies in International Conference on Multidisciplinary Healthcare AIIMS, New Delhi, 2014
- Presented paper on a case of Chronic Suppurative Otitis Media with mastoiditis and conductive hearing loss in the XVIII All India Homoeopathic Congress organised by Homoeopathic Medical Association of India, Kolkata, 2012
- **Presented paper on a case of Laryngeal Keratosis in the 66<sup>th</sup> World Homoeopathic Congress of Liga Medicorum Homeopathica Internationalis, Delhi, 2011**
- Presented paper on Polycystic Kidneys – A rare disease in the International Conference on Homoeopathy, Molecular to Organismal Level organised by Sukul Institute of Homoeopathic Research, Kolkata & International Society for Bio regulatory Medicine, London, 2010
- Presented paper on a case of Polycystic Kidneys, a rare disease in the XVII All India Homoeopathic Congress organised by Homoeopathic Medical Association of India, Delhi, 2010
- Resource person on the Topic 'How to Manage E.N.T. Diseases in General Practice' at 2nd Unique Homoeopathic Seminar, organised by HMAI, Gorakhpur, 2010
- Presented paper on A case of Acute Otitis Media in 19<sup>th</sup> International Conference organised by Asian Homoeopathic Medical League, Delhi, 2010

## **Faculty Development Programmes**

- **Workshop on Generative AI for Academic Workflow Automation organized by Amity Centre for Artificial Intelligence – June 2025**
- **Innovation & Intellectual Property Rights in Pharmaceutical Technology: Commercialization and Technology Transfer organized by Amity Institute of Pharmacy – May 2025**
- **Artificial Intelligence for Life Science, Healthcare & Biotechnology organized by Amity Centre for Artificial Intelligence – June 2024**
- **Cloud -Based Skill Development Workshop on Rational Computational Drug Design Approaches organized by Amity Institute of Biotechnology, Amity University Uttar Pradesh (AUUP) – 2022**
- **Innovation Entrepreneurship and Patents in Academia organized by Amity Institute of Biotechnology, Amity University Uttar Pradesh (AUUP), Lucknow Campus, Lucknow - 2020**

## **Volunteer experience and participation**

- Was a part of City of Joy Medical Education and Relief Project which provided free healthcare and medicine to indigent patients in India and educate U.S. students and physician organized by Department of Internal Medicine, Virginia Commonwealth University, 2003
- Participated in AIDS awareness programme organized by Central Council for Research in Homoeopathy, Delhi, 2006
- Participated in One Day Seminar on Cardiology organised by Indian Institute of Homeopathic Physicians, Delhi State Branch, 2009
- Participated in 19<sup>th</sup> International Conference organised by Asian Homoeopathic Medical League, Delhi, 2010
- Attended ROTP in Materia Medica at Lucknow, National Homoeopathic Medical College, 2010
- Attended the International Seminar in Recent Advances in Homoeopathy, organised by National Institute of Homoeopathy, Kolkata, Feb'2010
- Attended the International Conference on Homoeopathy, Molecular to Organismal Level organised by Sukul Institute of Homoeopathic Research, Kolkata & International Society for Bio regulatory Medicine, London, 2010
- Attended in the XVII All India Homoeopathic Congress organised by Homoeopathic Medical Association of India, Delhi, 2010
- Participated in the training program on Clinical Research Methods in Complementary and Alternative Medicine (CAM) for Homoeopaths organised by Bakson Homoeopathic Medical College,

Greater Noida and Robert Bosch Stiftung, Germany, 2012

- Participated in the National Homoeopathic Conference organised by Liga Medicorum Homoeopathica Internationalis, Indian Chapter Delhi, 2014
- Participated in CME on Research Methodology Sponsored by Ministry of AYUSH, Govt. Of India, 2015
- Participated in World Homoeopathy Summit on Research Advances in Scientific Research, organised by Global Homoeopathy Foundation, Mumbai, 2015
- Participated in TOT for Teachers of Homeopathic Medical Colleges, Materia Medica, Under Central Scheme of Ministry of AYUSH, Govt. Of India at Dr. M.L. Dhawale Memorial Homoeopathic Institute, Palghar, 2016
- Participated in All India Orientation Training Program on Quality Control of Homoeopathic Drugs by Homoeopathic Pharmacopoeia Laboratory, Govt. Of India, Ghaziabad, 2016
- Science Leadership Workshop by INYAS, Central University of Punjab, Passed exit exam.
- Merck 'Nucleic acid handling', 'Recombinant DNA technology'
- DST & ACS workshop 'Mastering the Publishing Process'
- Department of AYUSH, GOI, 'An update of COVID for AYUSH doctors'
- AllISM, Amity University, 'Renin Angiotensin System – SARS-CoV-19: Drug Repurposing and Discovery Opportunities', 'Advances in Genome Editing for Drug Discovery'
- Prema Life Sciences, 'An overview of Next Generation Sequencing technology', 'Career Perspectives: Transitioning from Academia to Industry'
- Sri Ramachandra Institute of Higher Education and Research, 'Best Practices in Higher Education'
- AISNP, Amity University, 'Dust Explosion'
- AIP, Amity University, 'Getting Innovative & Understanding IPR', 'Patent Searching & Drafting Claims'
- Science Policy Program, 'Towards a Policy Framework for Indian SciComm: Deliberating on Policy Interventions to vitalize Science Communication in India'
- ILBS, E-Conclave on 'World Hepatitis B Day'
- ICMR, 'International Symposium on Novel ideas in Science and Ethics of Vaccines against COVID-19 pandemic'

### **Special Experiences**

- Appointed as **SUBJECT EXPERT for Doctorate of Medicine (DM) Homoeopathy – (Clinical Oncology) by National Commission for Homoeopathy, Govt. of India.**

- Appointed as an **Inspector for Central Council of Homoeopathy, Govt. of India.**
- Appointed as **External examiner** in Surgery of B. R. Ambedkar University, Agra, W.B. Health University, Kolkata, Homoeopathic University, Jaipur, Delhi University, G.G.S.I.P. University, Delhi, Panjab University, Chandigarh, Jiwaji University, Gwalior.
- **Appointed as External examiner** in various subjects of **Pharmacy course of Board of Homoeopathic System of Medicine, Delhi.**
- Invited as **member representative** from Bakson Homoeopathic Medical College & Hospital along with C.M.D. in meetings to **formulate NABH AYUSH Standards** for homoeopathic colleges in India to meet the modern quality parameters.
- **Fully sponsored Invited Speaker for Doctor's Association of Homoeopathic Doctors of Lower Saxony and North Rhine Westphalia, Germany on 1<sup>st</sup> to 12<sup>th</sup> November 2019.**
- Appointed as a **reviewer in several national and international peer reviewed and Scopus indexed journals like, BioMed Central (BMC) United Kingdom, Homeopathy, Thieme Medical publishers, Clinical Medicine Insights, Sage Publishers, Advances in Integrative Medicine (AIMED), Science Direct, Indian Journal for Research in Homoeopathy (IJRH), Homoeopathic Links Thieme Publishers, Journal of Integrated Standardized Homeopathy (JISH).**

### Grants and Fellowship

- Was awarded fully funded grant by **International Co-operations, Ministry of AYUSH, Govt. of India** to participate and present oral paper titled "A Case of Bilateral Renal Cell Mass-Management by Homoeopathic medicines" in the 72<sup>nd</sup> International Conference of LMHI, Leipzig, Germany, 2017.
- Received fellowship from **Amity Science & Technology Innovation Foundation (ASTIF)** to **pursue PhD**

### Memberships

- Life member of Liga Medicorum Homoeopathica Internationalis (**LMHI**)
- Life member of Homoeopathic Medical Association of India (**HMAI**)
- Life member of Indian Association of Cancer Research (**IACR**)
- Life member of Indian Society of Translational Research (**ISTR**)
- Life member of Society for Nutraceuticals and Chronic Diseases (**SNCD**)

**Nilanjana Basu**