

NOTARIAL

Boseno, 7, St 1324 Adrig/02/2023

OFFICE OF THE NOTARY PUBLIC GOVERNMENT OF INDIA

DURGAPUR COURT, PASCHIM BARDHAMAN

NOTARY PUBLIC GOVT OF INDIA

SUSANTA KUMAR NANDY

NOTARIAL CERTIFICATE

((PURSUANT TO SECTION 8 OF THE NOTARIES ACT 1952)
TO ALL TO WHOM THESE PRESENTS shall come

I SUSANTA KUMAR NANDY duly authorized by the Government of India to practice as a NOTARY do hereby verify, authenticate, certify, attest as under the execution of the instrument annexed hereto collectively marked "A" on its being executed, admitted and identified by the respective signatories as to the matters contained therein presented before me.

AND X B. C. Por College D. Ph. Gov. R.

on identification by Id Advocate . Hiramorus Coy

PRIMA FACIE the annexed instrument "A" appears to be in the usual procedure to serve and avail as needs or occasions shall or may require for the same.

SUSANTA KUMAR NANDY M.COM. L.L.B

NOTARY GOVT OF INDIA

Professional Address

Durgapur Court, Durgapur - 713216

Paschim Bardhaman Mobile: 9732259955

E-mail: susantakumarnandy06@gmail.com

SUSANTA KUMAR NANDY, Notary Regn No 19762 Cont of India Durgapur Sugar of India

SUSANTA KUMAR NANDY

NOTARY GOVERNMENT OF INDIA

1 7 FEB 2023.

College of Allege Durgapur of

St 1324A du7/02/2023 Rs.50 INDIA NON JUDICIAL পশ্চিমবুজা पश्चिम बंगाल WEST BENGAL Before the Notary AF 303274 Govt. of India, Durgagan Paschim Bardhaman MEMORANDUM OF UNDERSTANDING National Institute of Pharmaceutical Education and Research, having an office at 168, Chunilal Bhawan, Manicktala Main Road, Kolkata-700054, India is an institute of national importance under Ministry of Chemicals and Fertlizers, Govt of India(hereinafter called NIPER which expression shall where the context so admits, include its successors and permitted assigns) And Dr. B.C. Roy College of Pharmacy & AHS, Dr. Meghnad Saha Sarani, Bidhan Nagar, Durgapur,

713206, India, approved by PCL and AICTE, New Delhi and affiliated to Maulana Abul Kalam Azad University of Technology, Kolkata(hereinafter called BCRCPwhich expression shall where the context so admits, include its successors and permitted assigns) of the other part.

Each, NIPER, Kolkata and BCRCPhereunder are also referred to separately as the ("Party"), or together as the ("Parties") 1. Preamble:

NIPER- National Institute of Pharmaceutical Education and Research, Kolkata

Whereas National Institute of Pharmaceutical Education and Research, Kolkata (NIPER-K) was created in 2007 under the aegis of the Ministry of Chemicals & Fertilizer as a center of excellence for higher education, research, and development in Pharmaceutical Sciences.

Dr. B.C. Roy College of Pharmacy & AHS, Durgapur

WHEREAS Dr. B.C. Roy College of Pharmacy & AHS is a primary provider of qualified, trained industry-ready Pharmaceutical Technologists. BCRCP, under the affiliation of MAKAUT, stands among one of the Pest pharmacy colleges in West Bengal, so to India, with being ranked in Top

ATA KUMAR NAMBY, Notary Regn. No. 19749 Govt. of India Durgapur Paschim Bardhamanprof. (Dr.) S

100 pharmacy colleges in India in NIRF 2020 & 2021 and within 100-125 rank band in 2022. It has secured NBA Accreditation for the B. Pharm program and very recently has got B++ Grade by NAAC as accreditation.

Now, therefore, the Parties have agreed to come together and have decided to work jointly on the following terms and conditions in identified areas of mutual interest, in accordance with the prevailing, regulations and norms of either or both the Parties & Government of India, as may be applicable

2. Scope of the MoU

This MoU which is for five (5) years is established to provide collaborative cooperation through:

i) Collaborative Research Programs in specific fields of interest

NIPER, Kolkataand BCRCP will jointly identify specific fields to conductcollaborative research programs of mutual interest and benefit to both parties.

ii) Student Training Programs

Training programs for students will be explored and organized by both the parties as per institute guidelines

iii) Faculty Exchange Programs

Exchange programs for faculty will be explored and conducted accordingly which will be beneficial mutually for both the parties.

iv) Sharing of Instrumentation Facility

The facilities shall be used as per the prevailing guidelines of the institutes.

v) Submission of Joint projects-

Research Project proposals/ conferences/ workshop may be jointly submitted to DBT, DST, ICMR or any other funding agencies for extramural funding for carrying out further studies of selected project/molecules. The subsequent sharing of funds and outputs will be decided mutually.

vi) Joint Supervision and exchange of faculty and students-

A provision of joint supervision for students in different areas of interest whereby the student will continue to be treated as full-time student at his/her home institution with Supervisor from his/her home institution and Co-supervisor from the collaborating institution. The faculty mobility in mutual areas of interest can take place for a specified duration based on mutual agreement. With a proval of CA Do Rojeet barrs.

vi) Any other areas of mutual interests.

3.0 **General Provisions**

The Parties agree to cooperate and support each other for implementing this MoU effectively through the following:

- The MoU shall remain valid for a period of five (5) years from the date of signing of the MoU
- ii. The collaborators shall initiate the work after obtaining necessary approval of the research project from Institutional Animal and Human Ethics Committee of NIPER, Kolkataand Institutional Animal Ethics Committee of BCRCP respectively along with

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Prof. (Dr.) Samir Kumar Samanta M. Pharm., Ph.D (J.U.) Principal

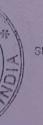
National Biodiversity Authority (NBA) and/or State Biodiversity Boards (SSB) as applicable, if in case of any material transfer w.r.t. any endangered plant or animal species.

The progress of implementation of the program shall be reviewed by NIPER, Kolkata and BCRCPas mutually decided and the benefits of the collaboration shall be shared mutually.

- iv. Both parties shall take necessary financial approvals from the competent authority for fulfilling the scope of the program under clause 2 on case to case basis.
- v. Both parties and their student can visit the collaborating institutes as per requirements of the project, and shall have adequate insurance coverage without any financial liability on each other.
- vi. The parties shall consult each other for any publication in respect of research work. These publications (papers, reports etc.) shall be in the names of actual research workers wherein it will be duly acknowledged that the work has been carried out under the collaborative research program of NIPER,Kolkataand BCRCP. As a part of collaboration, the outcomes of the research under this MoU shall develop joint publication.
- vii. Any publication, document and/or paper arising out of joint work conducted by the participants pursuant to this MoU will be jointly owned. The use of the name, logo and/or official emblem of the participants on any publication, document and/or paper will require prior permission of both the parties. It may however be ensured that the official emblem and logo are not misused.
- viii. Applications for joint Patents will be filed in the name of institutions namely NIPER, Kolkata and BCRCP.
- ix. Both parties agree to ensure appropriate protection of Intellectual Property Rights generated from such cooperation consistent with their respective laws, rules and regulations.
- x. In case research is carried out solely and separately by a Party or the research results are obtained through the sole and separate effort of a Party, the Party concerned alone will apply for grant of IPR and once granted the IPR will be solely owned by the concerned Party.
- xi. In case of research results obtained through joint activities, the grant of intellectual property rights will be sought by both the parties jointly and once granted these rights will jointly owned by the parties on mutually agreed terms and conditions.
- xii. In case of research results obtained through joint activities under this MoU both parties will apply as co-applicants for the protection of intellectual property rights subject to exclusive rights of both the Parties to commercialize the technology jointly on mutually acceptable terms and conditions.
- xiii. Any expenditure towards filing, maintaining and securing of IPR, development of the product and revenue towards license fee and royalty shall be shared on case-to-case basis in mutual consultation between Director, NIPER, KolkataandDirector,BCRCP under a separate agreement or letter.
- xiv. Any product generated under the program shall be licensed to any industry by NIPER, Kolkata and BCRCP jointly under a separate agreement after mutual consultation between NIPER, Kolkata and BCRCP towards the fulfillment of point (xiii) stated above.

Once the product generated under the PROJECT is licensed to any industry(ies), NIPER, Kolkata &BCRCPshall ensure that the licensed company shall affix in a conspicuous manner upon every Finished Product and/or mode of packaging containing the Finished Product a label or plate bearing the inscription "A joint product by NIPER, Kolkata&BCRCP" in letters

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of size not less than half the nominal size of the largest size of letters giving either the name of the company or its brand name or trademark for the Finished Product along with the logo of NIPER, Kolkata&BCRCP. The licensed company(ies) shall not sell Finished Product and/or any box or package containing the Finished Product without such label or plate being affixed thereon and shall also abide by the guidelines of other countries for the appropriate visibility of NIPER, Kolkata&BCRCP. Similarly, every advertisement, hoarding, technical literature, publicity and like material in respect of or relative to the Finished Product issued by the company shall include the same inscription as aforesaid in a prominent manner.

xvi. The annual maintenance of the facility including all the instruments shall be the responsibility

of each Party without any financial liability on each other.

xvii. Nothing contained herein shall constitute this a partnership or joint venture agreement or constitute either party as the partner, principal or agent of the other, this being a MoU between independent contracting entities.

xviii.No amendment or modification of this MoU shall be valid unless the same is made in writing by all the parties or their authorized representatives and specifically stating the same to be an amendment of this MoU. The modifications shall be effective from the date on which they are made, unless otherwise agreed to.

xix. Both parties shall do their utmost to ensure the smooth and efficient implementation of the

xx. The parties will use their best efforts to settle all matters in dispute amicably. All disputes and differences of any kind related to this MoU shall be jointly settled between Director, NIPER, Kolkataand Director, BCRCP

xxi. After termination of the MoU, neither of the Parties will be responsible for any losses, financials or otherwise which the other Party may suffer. Upon termination or expiry of the MoU, Parties are obliged to keep the shared information confidential.

xxii. Abide by the prevailing policies w.r.t. the classified information/data. During the tenure of this MoU and thereafter, Parties undertake on their behalf and on behalf of their students and subcontractors or employees, representatives or associates to maintain strict confidentiality and to prevent disclosure thereof to any third party, all the information and data exchanged or generated during the operation of the MoU.

xxiii. Both Parties agreethat except for court order requiring disclosure, neither shall disclose to any third Party(ies) without the written consent of the other, any information made available to the Parties, in the performance of work and/or generated under the performance of the work, under this MoU, except information which at the date hereof was in the public domain or known to either prior to the date hereof as evidenced by written documents subsequently

IN WITNESS THEREOFF, the parties represented by their authorized representatives, setforth their hands on this day, month and year first stated above, agreed and accepted this MoU to be signed (in two original copies) in the presence of following witnesses

Signed on behalf of NIPER, Kolkata

Name: रिक्टिस वि. I DR. RAVICHANDIRAN V.

निदेशक / DIRECTOR stitute of Pharmaceutical Education & Research, Kolkata (W.B.) Placenarinaceuticals, Ministry of Chemicals & Fertilizers, Govt, of India Signed on behalf of BCROR, Durgapur

M. Pharm., Ph.D Name PROF, (DR.) SUBRATA CHAKRABORTY

jar, Durgapur-713206, Date:

DURGAPUR



SUSANTA KUMAR NANDY, Notor Regn. No. 19769 Covt. of India Durgapur Pacchi n Bardhanan

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Samir Kumar Samanta Prof. (Dr.) M. Pharm., Ph.D (J.U.) Principal

Prof. (Dr.) Subrata Chakraborty M. Pharm.,Ph.D Or. B.C. Roy College of Pharmacy & Allied Health Sciences Bidhannagar, Durgapur-713206, Burdwar Seal Seal: Witnessed by: Witnessed by Signed: Signed: Date: File Dr. B. C. Roy College of Pharmacy & AHS

Witnessed by: Ourgepur-713206 Date: Witnessed by: word our Signed: Signed: Vugato Ba Date: Date: 17/02/2023 REGISTRAR
Dr. B. C. Ray College of Pharmacy &A.H.S.
Bidhannagar, Durgapur-713206 College of b maceutica/ KOLKATA Durgapur NEN # 12 F/449/2721/2019 Instrument "A" REFERRED THE NOTARIAL CERTIFIC

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Project 1

Projecttitle: Development of novel lead molecules targeting Alzheimer disease

Abstract: We are to find newer leads to combat Alzheimer's disease which would work by preventing senile plaque formation. Senile plaque is deposited in brain neurons due to β - β entanglement of protein fibrils which is called Amyloidogenesis. The β -secretase or γ secretase cleaves Amyloid Precursor protein (APP) to yield toxic Aβ-42 or Aβ-40 protein (or peptide) which are basically beta fibrils. The adherent β -fibrils conjoin by stacking together due to cross linking by hydrogen bonding. This form beta stack or senile plaque in brain neuronal pathway. Our aim is to design heterocylic non-toxic lead/s which would inhibit both β -secretase upstream as well as destabilize β - β plaque downstream to attenuate protein fibrillation. The lead would also cross the blood brain barrier work in the brain.BCRCP, Durgapur will carry out virtual screening and ligand design, synthesis of the molecules, evaluation of anti-aggregator property by in vitro protein fibrillation assay, total characterization of the molecules (1H, C13-NMR and MS) and molecular biology experiments(CD, ITC, SEM) will be carried out at NIPER Kolkata.

Investigators

- 1. Principal Investigator: Dr. SouvikBasak, Associate Professor, BCRCP, Durgapur
- 2. Co-Investigator: Mrs. Puja Mishra, Assistant Professor, BCRCP, Durgapur
- 3. Co-Investigator:Dr. Abhijit Hazra, Scientist Gr-I, NIPER Kolkata

Project 2

Title: Studies are aimed at repositing of drugs statins (Simvastatin & Rosuvastatin) for the treatment of depression and the mechanism involved therein.

Abstract: Studies are aimed at repositing of drugs (NSAIDS/ HYPOLIPIDEMICS) for the treatment of depression and identifying fast acting antidepressant without rebound symptoms.In vivo assay (Acute and chronic test), Mechanistic studies, In Vitro assay, Confirming the targets will be carried out at BCRCP, Durgapur. Estimation of brain neurotransmitter (glutamate & GABA), BDNF, Rho expression; nNOS and eNOS, immunohistochemical studies, polypharmacology analyses will be carried out atNIPER Kolkata.

> Samir Kumar Samanta Prof. (Dr.

Investigators

- 1. Principal Investigator: Dr Shyamshree S S Manna, BCRCP, Durgapur
- 2. Principal Investigator: Amit Kumar Halder, BCRCP, Durgapur
- 3. Co-Investigator:Dr. Sugato Banerjee, Associate Professor, NIPER Kolkata

Project 3

Projecttitle:Coumaric acid/pullulan conjugate-based hydrogel dressings for burn wound healing applications

Abstract: We would synthesize coumaric acid/pullulan conjugate-based hydrogel dressings and subsequently characterize their burn wound healing efficacies at cellular level and in animal models. Coumaric acidis a natural bioactive agent with anti-inflammatory, anti-bacterial and antioxidant properties and itdisplayed promising tissue regeneration and wound closure potentials (Contardi et al., 2021). Thus, it is assumed that coumaric acid/pullulan conjugate-based hydrogels could represent themselves an evolving burn wound dressing. Synthesis, formulations, and characterization will be carried out at BCRCP, Durgapur and cell culture experiments and animal studieswill be carried out at NIPER Kolkata.

Investigators

- 1. Principal Investigator: Dr. HridayBera, Associate Professor, BCRCP, Durgapur
- 2. Co-Investigator: Dr. SouvikBasak, Associate Professor, BCRCP, Durgapur
- 3. Co-Investigator: Dr. KausikKapat, Assistant Professor, NIPER Kolkata

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Prof. (Dr.) Samir Kumar Samanta M. Pharm., Ph.D (J.U.) Principal

Fwd: curcumin pyrazole isoxazole

From: kausik kapat (kausikkapat2012@gmail.com)

souvik_basak1@yahoo.com; souvikb9@gmail.com

Date: Wednesday, May 10, 2023 at 01:20 PM GMT+5:30

Souvik, pls. see the attachment. Abhijit has identified that the compounds reported in those papers are quite similar to yours.

For information only.

Regards,

--- Forwarded message --

From: Abhijit Hazra <apuhazra@gmail.com>

Date: Wed, Feb 15, 2023 at 6:30 PM Subject: curcumin pyrazole isoxazole

To: kausik kapat < kausikkapat2012@gmail.com >

PFA

Thanks *

Dr Abhijit Hazra

Scientist Gr I

NIPER Kolkata (Chunilal Bhawan, 168 Maniktala Main Road, Kolkata-700054)

Dept. of Pharmaceuticals (MoC&F)

E.mail-apuhazra@gmail.com

Mob No-9830751941

Researcher ID: N-6767-2019

Google Scholar ID: JTCnchwAAAAJ ORCID ID: 0000-0003-1094-549X

Scopus ID: 23477128800

Dr. Kausik Kapat

Assistant Professor, Medical Devices

National Institute of Pharmaceutical Education and Research Kolkata

3:+91-7365002465

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Principal Dr. B. C. Roy College of Pharmacy & AHS Durgapur, West Bengal-713206

Prof. (Dr.) Samir Kumar Samanta M. Pharm., Ph.D (J.U.)



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curcumin pyrazole isoxazole 2.pdf



curcumin pyrazole isoxazole.pdf



Re: zeta potential reults

From: Abhijit Hazra (apuhazra@gmail.com)

To: kausik.kapat@niperkolkata.ac.in

Cc: souvik9@gmail.com; souvik_basak1@yahoo.com

Date: Tuesday, March 28, 2023 at 04:30 PM GMT+5:30

Please find attached the NMR data.

Thanks

On Thu, Mar 23, 2023 at 6:17 AM Kausik Kapat < kausik.kapat@niperkolkata.ac.in > wrote:

Dear Souvik,

These are the zeta potential data for the samples submitted by Hriday Bera. Please forward it to him.

For your reference please.

Regards, Kausik

----- Forwarded message --

From: ARJA ASWANI <a rajaashwini@gmail.com>

Date: Monday, 13 March 2023 Subject: zeta potential reults

To: Kausik Kapat < kausik.kapat@niperkolkata.ac.in >

Good Afternoon Sir,

Below I'm attaching the results of zeta potential for given samples.

Thanks & Regards Aswani Arja

Dr Abhijit Hazra Scientist Gr I

NIPER Kolkata (Chunilal Bhawan, 168 Maniktala Main Road, Kolkata-700054)

Dept. of Pharmaceuticals (MoC&F)

E.mail-apuhazra@gmail.com

Mob No-9830751941

Researcher ID: N-6767-2019

Google Scholar ID: JTCnchwAAAAJ ORCID ID: 0000-0003-1094-549X

Scopus ID: 23477128800



1H Expansion.pdf 148.5kB



1H.pdf 151.7kB



13C.pdf 227.8kB



Re: zeta potential reults

From: Abhijit Hazra (apuhazra@gmail.com)

kausik.kapat@niperkolkata.ac.in To:

souvik9@gmail.com; souvik_basak1@yahoo.com

Date: Tuesday, March 28, 2023 at 04:30 PM GMT+5:30

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To: Kausik Kapat < kausik.kapat@niperkolkata.ac.in>

Good Afternoon Sir,

Below I'm attaching the results of zeta potential for given samples.

Thanks & Regards Aswani Arja

Dr Abhijit Hazra Scientist Gr I

NIPER Kolkata (Chunilal Bhawan, 168 Maniktala Main Road, Kolkata-700054)

Dept. of Pharmaceuticals (MoC&F) E.mail-apuhazra@gmail.com

Mob No-9830751941

Researcher ID: N-6767-2019

Google Scholar ID: JTCnchwAAAAJ ORCID ID: 0000-0003-1094-549X

Scopus ID: 23477128800



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