

# ENSEMBLE

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## CEFIPRA

Indo-French Centre for the  
Promotion of Advanced Research

Newsletter of the Indo-French Centre for the Promotion of Advanced Research

# Editor's Note

**Dr. Mukesh Kumar**  
Director, CEFIPRA



## Dear Readers,

CEFIPRA, an Indo-French joint platform contributes extensively between India and France for cooperation in Science, Technology and Innovation in diverse areas of S&T.

The Centre is now celebrating **30 years** of its services to Indo-French S&T community. The celebration has begun with the launching ceremony at Reims, France on 15<sup>th</sup> May, 2017. The two Co-Chairs expressed their appreciation for CEFIPRA's services for strengthening cooperation between India and France. During this landmark year, they also wished good luck to CEFIPRA

for its further journey beyond 30 years. In this edition of newsletter, we also present the visionary ideas of a senior French scientist associated earlier with the CEFIPRA.

During the reporting period, there were meetings of 59<sup>th</sup> Scientific Council (SC) and 30<sup>th</sup> Industrial Research Committee (IRC) of CEFIPRA, organized during 15<sup>th</sup> to 19<sup>th</sup> May, 2017 at Reims, France. The evaluation of research proposals received under the two core programmes were carried out by SC & IRC along with discussion on various important issues.

The Centre is grateful for your continued support for promoting Indo-French cooperation in S&T.

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Director, CEFIPRA

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\* CEFIPRA's 30 Year graphic design on coverage courtesy by Mr Jag Jeevan Ram, Office Assistant, ICMR-RMRC, Port Blair

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# Lead Article

## Conversation with Dr Rajagopal Krishnamoorthy



Dr. Rajagopal Krishnamoorthy (RK), Former Principal Investigator of CEFIPRA (from Hôpital Robert Debré, INSERM Unité 458, Paris) spoke to ENSEMBLE and shared his views on various issues pertinent to current S&T scenario in India and France during his visit to Puducherry, India on 21<sup>st</sup> and 22<sup>nd</sup> March, 2017.

CEFIPRA Project No. 0103-2 entitled “Molecular Genetics of Major Haemoglobinopathies in India” was undertaken by French PI, Dr. Rajagopal Krishnamoorthy, Hôpital Robert Debré, INSERM Unité 458, Paris in collaboration with Indian PI, Dr. Roshan B. Colah, Institute of Immunohematology now known as National Institute of Immunohematology (NIIH) of ICMR at Mumbai during April, 1992-April, 1995.

Indo-French symposium entitled “Pharmacogenomics: Concepts, Technology, Clinical Relevance and Ethical Aspects was also organized at Cochin during 11-14<sup>th</sup>, December 2007 supported by CEFIPRA by Dr. C Adithan, JIPMER and Dr. Krishnamoorthy, INSERM.

**Ensemble**

Do you feel that CEFIPRA has emerged as a key platform for research partnership between India and France for Science, Technology and Innovation?

**R. K.**

Yes, without any doubt, running an organization smoothly with funding from two different countries over 30 years is not a that straight forward procedure. It is an exceptional bilateral model in Science, Technology and Innovation. In one sense, CEFIPRA per se is a great innovation transforming the idea of cooperation into a high performance engine, thanks to both governments, for their vision and mutual trust. Such a streamlined precious tool will certainly continue to promote scientific cooperation between France and India and will further strengthen the friendship.

**Ensemble**

What is CEFIPRA's role in developing bilateral research organizations/labs with respect to modern trend in India & France?

**R. K.**

CEFIPRA has already achieved excellence in promoting scientific co-operation between France and India in variety of fields. The expertise acquired over several years allowed CEFIPRA to expand its activities by integrating other scientific, academic and industrial partners from both India and France to harmonise the interactions. To cite a few examples, these are DST-ANR, DST-INRA, DST-Inria, AIRBUS industries, Saint Gobin Research India etc. These extensions were made possible due to continuous innovations in CEFIPRA's activities. Probably, it is high time that CEFIPRA moves from the above mentioned dynamic innovation to disruptive innovation which of course is a tradition breaking process. Given the fact that tremendous effort has been made to promote scientific interactions in basic and applied sciences between the two countries, now a pragmatic appraisal of what has been achieved, pitfalls encountered and changes needed is a logical pursuit. In this regard, the newly created Standard Expert Panel (SEP), endeavoured with the knowledge of societal needs of both countries may be of great help in the above mentioned assessment task.

**Ensemble**

Does CEFIPRA is able to address the overall S & T needs of partnering countries according to the respective national scientific agenda?

**R. K.**

It is naïve to believe that CEFIPRA alone can address the overall needs of these two countries. The fine details of scientific agenda for both countries could differ however, overall scientific and technological research towards innovation is certainly a priority of both the governments. The principal role of CEFIPRA

is to promote interactions between the actors intimately involved in such activities wherein portions of scientific agenda of both countries may significantly overlap. The strength of CEFIPRA has been in establishing linkages between the various stakeholders in the knowledge innovation chain of the two countries over the last 30 years. With this foundation, CEFIPRA has embarked on programmes that link the national agencies of both countries involved in each step of the knowledge-innovation chain with the aim of generating products for the benefit of end users.

**Ensemble**

What areas do you feel that CEFIPRA should focus especially in Life Sciences for further development under Indo-French ties?

**R. K.**

As you mentioned, please note that I can only address the issues regarding the field of life sciences, that too in limited area of my expertise. Indeed revolution in genomics has added powerful new potentialities. For example, the so called (rare) monogenetic disorders are indeed somewhat multifactorial in their clinical/biological expression (phenotype), because functional polymorphisms in a (countable) number of other genes can influence the disease phenotype (epistasis, pleiotropy...). A further increment in complexity is brought by the interacting environmental lifestyle factors (nutrition, intercurrent infections, biological/psychosocial stress etc.). Then imagine the depth of complexity concerning the most common multifactorial disorders. Although Genome-Wide Association Study (GWAS), genome sequencing technology and informatics revolution allowed us to make a major leap in understanding the etiopathology of multifactorial disorders, a major gap in our knowledge still persists. For filling up of the gap, say a given multifactorial disorder in France and in India, where the genetic makeup and/or environmental influences differ will be of great interest in trans population studies and may accelerate acquisition of insights into the pathophysiological processes and thereby to the development of novel therapeutic strategies including in the field of precision medicine. The optimal sample size required for such studies surpass hundred thousand and hence the project dimension will be giant. CEFIPRA may take into consideration one or two major multifactorial disorders of common interest to France and India in such endeavours. Of course additional funding needs to be incorporated, the sources which needs to be explored.

**Ensemble**

What priority of research areas can be added to complement the latest locally designed programmes for innovation in two countries?

**R. K.**

CEFIPRA is quite apt to link the overlapping national programmes of innovation. The priorities could be determined based on the results of close consultation with the scientific community of both countries and also by reviewing the bilateral projects funded by CEFIPRA in the past. There are some potentially ambitious projects that extend from basic to translational i.e. “implementation research” by integrating both “hard (genomics, metabolomics) and soft (social & lifestyle stressors) sciences”. CEFIPRA can be proactive by identifying Indo-French partners in promising fields that are attractive to international funders (e.g. auto-immune disorders, cardiovascular diseases, major psychiatric disorders etc.). CEFIPRA may focus in developing intimate links between basic research and industrial development. This approach to research is essential to place a sufficiently differentiated offer on the competitive industrial stage of tomorrow. The technological research needed for filling this gap has become a real bottleneck in innovation both in India and France. As I mentioned earlier, a successful “implementation research network” with mass impact in both countries can spike the interests of industrial partners.

A word about implementation research network: Efforts have been invested so far to improve evidence-based practices but implementation to the benefit of end users in real world has largely lagged behind so far. In fact, translating policies into effective practices and to fill such (there are major challenges) gap, dedicated “implementation research network” are being developed across various domains in western countries. Attempts to use the products of research to improve the health services, for example, require coordinated transdisciplinary actions (for example refers to the mhGAP intervention guide by WHO 2017 in mental health and hypertension). [<http://tinyurl.com/aelvusl>]

**Ensemble**

Regarding Collaborative Scientific Research Programme (CSRP) with which you were associated for long and Industrial Academia Research Development Programme (IARDP) –How to make these two flagship programmes more attractive within our core budget?

**R. K.**

Close interactions can be built among major stakeholders with an effective dissemination of IARDP among industrial partners and R & D clusters from France & India. To begin with, evaluators should have a sound

“community outreach” approach to understand the priority issues raised by the both communities (India & France). After pragmatic feasibility & evaluation of the prioritized issue, CEFIPRA may fund to develop a joint Centre of Excellence dedicated to cross disciplinary “implementation research” in that field based on already acquired robust data and models (eventually from one of the CEFIPRA funded projects!).

**Ensemble** Could mobility programme of young scientists such as Raman-Charpak; ESONN & Soleil Fellowships etc. should be enhanced.

**R. K.** The mobility programmes are very important pillar/platform provided by CEFIPRA for Indo- French S & T activities. The current mobility programmes are limited to Indian side which is really helping to gain strength in training at Soleil, ESONN etc. Similar programmes should be encouraged which promote mobility of French students and researchers to India particularly in areas of life sciences. The outflow and inflow of Indian and French budding scientists should be enhanced and balanced by making it more attractive for French scientists as well. In the areas of life sciences, there are Centres of Excellence and CEFIPRA can disseminate the information (visibility) to the French Ph.D. students about such Indian host labs with optimal infrastructure facilities. Also CEFIPRA can provide wider publicity by targeting Indian and French clusters and entrepreneurship centres to connect them with industrial partners-Small and Medium Enterprises (SMEs) and Small Scale Industries (SSIs).

**Ensemble** In what way CEFIPRA should join more hands with private sectors to take Public Private Partnership (PPP) Programme forward?

**R. K.** Presently under IARDP, the industrial participation is minimum leading to less prototype development for commercialization. CEFIPRA could support proposals in prototype development which are likely to be proximal for commercialization. At this end, appropriate mechanisms need to be developed for attracting both private sectors and other funding sources; two-three Public Private Partnership (PPP) Programmes in prototype development to start with. In life science field Involvement of both start-ups and SMEs in clinical trial sectors for “implementation R&D” could be explored that will somewhat help to close the existing gap between academic and industrial research. CEFIPRA may address these issues under PPP mode and perform also critical evaluation of the existing PPP programmes in order to improve the outcomes.

**Ensemble** How and to what extent, CEFIPRA should engage other national funding agencies in both countries to expand the programmes?

**R. K.** For any programme, CEFIPRA's role must remain a launching pad of S&T cooperation between scientists of both countries. Once the programme takes off successfully, of course after initial hiccups, relay by other national/ European funding agencies is mandatory. In such scenario, of course taking into consideration of potential IP issues.

CEFIPRA can play a role by relaying to those agencies (from France & India) how to create an instrument in their funding agenda that will sustain the existing cooperation. Hence, time has come for CEFIPRA to act as facilitator for national /European funding agencies and not simply a funder forever. However, I feel that the time has now come to increase the funding of CEFIPRA by both the sides in order to take up new initiatives/opportunities.

**Ensemble** Message for better execution and implementation of programmes.

**R. K.** The team of CEFIPRA has shown excellence over the years and the operational flexibility provided by the Centre is its main strength and highly appreciated by the scientific community both from France and India. Researchers working under the programmes feel extremely satisfied (me too in the past) both on scientific and inter-personal relationships. The exchange of budding scientists from both countries to engage in world class research, the prompt and timely response by CEFIPRA and associated bodies in attending issues (including administration and extension requests) is lauded by everyone.

I wish all the best and long active life to the CEFIPRA team and hearty congratulations for the two countries in accomplishing a 30 Year- fruitful adventure with wisdom.

## Debriefing Session for the Raman-Charpak Fellows-2015

A debriefing session was organized for the Raman-Charpak Fellows-2015 at CEFIPRA Office, New Delhi on 13<sup>th</sup> April, 2017. Eleven Fellows (ten Indian & one French via skype) attended the session.

They shared their academic and social experiences. Most of the fellows were satisfied and appreciated working and research atmosphere of host institutions in France. They were extremely happy to be called as Raman-Charpak laureate.

It was noted that the Fellowship has provided the bridge for the collaborations among the institutes. Parent institutes of Fellows and host institute's Supervisors/Mentors of the Fellows are now considering submitting joint proposals under various programmes of Indo-French collaborations. The Expert Committee and Fellows appreciated the role of CEFIPRA for effectively managing the programme and quick response by the CEFIPRA.



## Launching Ceremony of 30<sup>th</sup> Year Celebration of CEFIPRA

The Indo-French Centre for the Promotion of Advanced Research (IFCPAR/CEFIPRA), was established in 1987 and 1st meeting of Governing Body was held on 15<sup>th</sup> May, 1987.

To mark the 30<sup>th</sup> year of CEFIPRA, celebrations started on 15<sup>th</sup>

May, 2017 at Reims, France. The welcome remark was given by Dr. Mukesh Kumar, Director, CEFIPRA/IFCPAR. He also made a presentation on 30 years Journey of CEFIPRA-The

presentation outlined the progress made by Centre during the progression of thirty years.

During the event, Dr. Philippe Arhets, Counsellor (S&T), French Co Chair, Ministry of Foreign Affairs and International Development, Government of France, while Dr. Arabinda Mitra, Adviser & Head, International Cooperation (Bilateral), Department of Science & Technology, New Delhi, addressed on behalf of the Indian Co Chair. The event was attended by fifteen to twenty Scientists. The CEFIPRA also started a year around activities to showcase its success as a model for binational collaborative research platform in advanced areas of Science & Technology.



## Videoconference between TDB, CEFIPRA and Bpifrance

A joint videoconference between Technology Development Board (TDB), CEFIPRA and Banque publique d'investissement (Bpifrance) - a French public investment bank, was held on 2<sup>nd</sup> May, 2017. The meeting was for deliberations on evaluation procedure of proposals received

under TDB-CEFIPRA-Bpifrance programme by deadline of 31<sup>st</sup> Jan, 2017. TDB and Bpifrance officials discussed the evaluation criteria of both the sides. They also discussed time period /duration of a call and cut of dates along with subject areas/thrust areas to be prioritised under the next call.

## 59<sup>th</sup> SC and 30<sup>th</sup> IRC Meetings

CEFIPRA organized fifty-ninth meeting of the Scientific Council (SC) & thirtieth meeting of Industrial Research Committee (IRC) during 15-19<sup>th</sup> May, 2017 at Reims, France. The SC reviewed sixty nine new proposals submitted under the Collaborative Scientific Research Programme of CEFIPRA along with mid-term progress of eight projects and final review of eleven completed projects. Further, the Council reviewed five proposals for holding seminars in India/France during 2017-2018.



An Overlapping Meeting was organized between Members of Scientific Council (SC) and Industrial Research Committee (IRC) on 18<sup>th</sup> May, 2017 at Reims, France wherein members discussed the various common issues and recommendations of last Governing Body held on 6<sup>th</sup> March, 2017.

## Report

The 30<sup>th</sup> meeting of Industrial Research committee was also held during 18-19<sup>th</sup> May, 2017 wherein, the Committee evaluated four new proposals under the Industry Academia Research and Development Programme of CEFIPRA and also reviewed five ongoing projects.



**Prof. Manindra Agarwal**  
Indian Institute of Technology,  
Kanpur

### Welcome to New Members of Scientific Council of CEFIPRA

*CEFIPRA extended warm welcome to Prof. Santanu Bhattacharya (Pure & Applied Chemistry) and Prof. Manindra Agrawal (Pure & Applied Mathematics/ Computational Science) who have recently joined the Scientific Council.*



**Prof. Santanu Bhattacharaya**  
Indian Association for the Cultivation of Science  
Kolkata

### Director's Meetings in France



1. Director CEFIPRA visited the University of Rennes, Rennes on 22<sup>nd</sup> May, 2017 and had a discussion meeting with Pls Viz Dr C Bruneau, Dr H Doucet and Dr C Darcel and Prof. Pierre Dixneuf & their

groups involved with CEFIPRA Projects in Catalysis & Green Sustainable Chemistry, wherein several issues related to collaboration were discussed.

2. Prof. Anthony SZYMCZYK, Prof. Patrick LOULERGUE from Université de Rennes and Dr. Benoit TEYCHENE from University, of Poitiers, France Principal Investigator and Co-Investigator of CEFIPRA supported project entitled "Swachh Neer - Une Vie Meilleure: combating water issues through Indo-French water networking" had discussion meeting with Director CEFIPRA on 22<sup>nd</sup> May 2017 at University of Rennes, Rennes. The team was working towards long term collaboration with Indian researchers at



University of Petroleum and Energy Studies (UPES), Dehradun, Indian Institute of Technology (IIT) Roorkee and National Environmental Engineering Research Institute (NEERI), Nagpur. The ongoing project aims at developing, through networking between Indian and French teams for in-house technology for treating water. First of all, specific contaminant will be evaluated through a careful analysis of available water resources and wastewater in France and India. Then a technology based on filtration and nanoparticles engineering will be evaluated to treat the identified pollution.



3. Later on, Director, CEFIPRA had lunch on meeting with Prof. Jean-François Carpentier, Vice President of Research at University of Rennes followed by a presentation on activities & programmes of CEFIPRA which was attended by several present and past collaborators and students. The University of Rennes had actively involved in Collaborative Scientific Research Programme in various Science and Technology areas.



5. During the visit to France, the Director, CEFIPRA had a meeting with Mr. Patrick Comoy, Deputy Director in Charge of higher education and research at MAEDI, Dr. Jenifer Clark & Ms. Julie Blazy of Ministry of Foreign Affairs and International Development, Government of France in Paris on 23<sup>rd</sup> May, 2017. He briefed them about the decision and recommendations made during 59<sup>th</sup> Scientific Council and 30<sup>th</sup> Industrial Research Committee and Overlapping meetings held during 15-19<sup>th</sup> May, 2017 at Reims, France.

4. Meeting was held between Dr. Mukesh Kumar, Director, CEFIPRA and Mr. Patrick Cornet, Head of International Innovative Programmes, Bpifrance, Ms. Zena El Kurdi, Chargée d'Affaires, Innovation International, Bpifrance on 23<sup>rd</sup> May, 2017 Bpifrance office, Paris regarding programme visibility, wider dissemination and future plans.

Discussion was also held on the thrust areas for the future call for proposals under the programme. In the present call under TDB-CEFIPRA-Bpifrance Programme, three thrust areas of the call were Aeronautics, Automotive and Biotechnology with special emphasis to health biotechnology. The Director, CEFIPRA shared the information regarding upcoming event where Bpifrance could be the part as well as participants from French industries for brain storming event may be supported by Bpifrance.





## 7<sup>th</sup> Finance Sub Committee Meeting (Extra Ordinary)

The Governing Body in its 30<sup>th</sup> meeting held on March 6<sup>th</sup>, 2017 at Paris directed an Extra Ordinary meeting of the Finance Sub-Committee to discuss certain issues involving financial aspects. Hence, the Extra Ordinary Meeting of the Finance Sub-Committee was held on 31<sup>st</sup> May, 2017 at CEFIPRA office, New Delhi under the Chairmanship of Joint Secretary and Financial Advisor, DST. Following officials were present during the meeting; Dr. Philippe Arhets, Counsellor for Science & Technology, French Embassy in India, New Delhi; Mr. P.K Gupta, Chartered Accountant, KSG & Co., New Delhi-; Dr. Rajiv Kumar, Scientist 'E', International Division, DST, New Delhi and Dr. Mukesh Kumar, Director, CEFIPRA, New Delhi along with other CEFIPRA accounts staff members.

## Indo-French Research Collaboration Workshop 2017 (IFRCW 2017)



A three day collaborative workshop in the areas of Microbiology, Immunology, Cardiology, Emergency Medicine, Genetics, Endocrinology, Psychiatry, Orthopaedics, Intensive Care, Toxicology and Quality was held during 4<sup>th</sup> to 6<sup>th</sup> June, 2017 at JIPMER Puducherry. The workshop was organized by Assistance Publique Hopitaux De Paris (APHP), France, in collaboration with Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER) Puducherry. The aim of the workshop was to explore and expand collaborative partnerships in clinical and research topics, between the two medical bodies. The workshop was attended by SLS Lariboisiere FW Group, and Consulate General of France, Puducherry S&T Counsellor, Embassy of France, New Delhi.

The inaugural address was given by Mr. Philippe Arhets, S & T Counsellor, Embassy of France, New, Delhi and Dr Mukesh Kumar, Director, CEFIPRA made a presentation on the various CEFIPRA activities for facilitating Indo-French research collaborations during closing session held on 6<sup>th</sup> June, 2017. The attendees visited various departments of JIPMER and discussed about projects development. Twelve senior faculties/doctors from ten departments of various associated hospitals in Paris, along with ten department's doctors/researchers from JIPMER, participated in the workshop.

## 14<sup>th</sup> Meeting of the Club R&D



The fourteenth meeting of the R & D Club was organized by French Embassy in India at Michelin India's Research and Development Laboratory at Manesar, Haryana on 13<sup>th</sup> June, 2017. The new Michelin India's R&D Centre was inaugurated by French Ambassador to India H.E Mr Alexandre Ziegler. During the inauguration, His Excellency highlighted that Indo-French vibrant economic partnership was boosted by France's industry such as Michelin which actively contribute to "Make in India" and bring research and development technology expertise here. Mr Philippe Verneuil, President, Michelin gave the welcome address to the members of R & D club after which members had tour to Michelin Research and Development Laboratory. Dr. R.A. Mashelkar, Chairman

National Innovation Foundation President – Global Research Alliance, National Research Professor and member of Michelin Corporate Innovation Board made a presentation on "the changing landscape of science and technology innovation in India". Presentations were also given by Schneider Electric and Renault-Nissan on their respective R&D activities in India. The members also discussed the Intellectual property Rights (IPR) issues with Industry during collaborations with academic partner. Director CEFIPRA, informed the gathering about its newly created Standard Expert Panel (SEP) related to IPR and also provided information about CEFIPRA.

Representation from industries like Dassault System, Dassault Aviation, Bull, Renault Nissan, Solvay, Safran, Sautit Gobain, Schnider Electrive and total attended the meeting.

## Meeting of the Expert Committee under CEFIPRA-ESONN Fellowship-2017

A meeting of the Expert Committee to shortlist researcher and students under CEFIPRA-ESONN Fellowship-2017 was held on 15<sup>th</sup> June, 2017 and shortlisted 18 researchers from India to be finally selected 8 by the ESONN.

## Forthcoming Events

(Supported by CEFIPRA)

- Plasticity, Rheology and Nonlinear response in Driven Amorphous Solids" June 19 – 23<sup>rd</sup>, 2017 at Université Joseph Fourier, Grenoble, France.
- Indo-French Workshop on "Microwave Nanotechnologies (MiNa)" July 3 - 4<sup>th</sup>, 2017 at Indian Institute of Science, Bangalore.

## Change in name for CEFIPRA's Airbus Programme

- Airbus group CEFIPRA Aerospace Programme will now be called as Airbus SAS-CEFIPRA Aerospace Programme with effect from 1<sup>st</sup> July, 2017 as suggested by Airbus SAS.

### Mobility of Indian scientists / researchers supported under CEFIPRA projects during April-June, 2017

S.No.	Project / Programme Title	Institutional Affiliation (From)	Name / Institution Visited (To)
1	Development of carbon nanotube metal hybrid catalysts	<b>Prof. Irishi N N Namboothiri</b> Department of Chemistry Indian Institute of Technology Bombay Mumbai	<b>Dr. Eric Doris</b> Alternative Energies and Atomic Energy Commission (CEA), Saclay, 91191 Gif- sur-Yvette Cedex
2	p-adic aspects of automorphic forms and their L-functions	<b>Prof. Anantharam Raghuram</b> Indian Institute Science Education and Research, Pune	<b>Prof. Mladen Dimitrov</b> CNRS / Laboratoire Paul Painlevé UMR 8524, Lille
3	Arithmetic circuits computing polynomials	<b>Prof. Meena Mahajan</b> The Institute of Mathematical Sciences Chennai	<b>Dr. Guillaume Malod</b> e'matique de Jussieu Universit'e Paris Diderot - Paris
4	Deciphering the role of <i>Mycobacterium tuberculosis Serine/Threonine</i> protein phosphatase PstP	<b>Prof. Yogendra Singh</b> Department of Zoology, University of Delhi, Delhi	<b>Dr. Virginie Molle</b> CNRS UMR5235- DIMNP (Dynamique des Interactions Membranaires Normales et Pathologiques) Universite Montpellier II Montpellier
5	Chiral phosphahelicenes in gold(I) enantioselective catalysis	<b>Dr. Akhila Kumar Sahoo</b> School of Chemistry University of Hyderabad, Hyderabad	<b>Dr. Angela Marinetti</b> Institut de Chimie des Substances Naturelles (ICSN) UPR2301, Gif-sur- Yvette
6	Axially chiral biaryls from C-H activation & radicals	<b>Dr. G. Sudhakar</b> CSIR- Indian Institute of Chemical Technology, Hyderabad	<b>Prof. Françoise Colobert</b> University of Strasbourg/ UMR 7509 CNRS 25 Rue Becquerel 67087 Strasbourg Cedex 2
7	Sums of integers: fourier, combinatorics, computation	<b>Dr. Priyamvad Srivastav</b> The Institute of Mathematical Sciences Chennai	<b>Dr. Jean-Marc Deshouillers</b> Institut Mathématique de Bordeaux, Talence
8	Sums of integers: fourier, combinatorics, computation	<b>Prof. Balasubramanian Ramachandran</b> The Institute of Mathematical Sciences Chennai	<b>Dr. Jean-Marc Deshouillers</b> Institut Mathématique de Bordeaux, Talence
9	Sums of integers: fourier, combinatorics, computation	<b>Dr. Ravindranathan Thangadurai</b> Harish-Chandra Research Institute, Chhatnag Road, Allahabad	<b>Dr. Jean-Marc Deshouillers</b> Institut Mathématique de Bordeaux, Talence
10	Sums of integers: fourier, combinatorics, computation	<b>Prof. Shanta Laishram</b> Indian Statistical Institute, New Delhi	<b>Dr. Jean-Marc Deshouillers</b> Institut Mathématique de Bordeaux, Talence
11	Olfactory Modulation of Insect Flight (OMIF)	<b>Prof. Gaiti Hasan</b> National Centre for Biological Sciences Tata Institute of Fundamental Research, Bangalore	<b>Dr. Jean-François Ferveur</b> Centre des Sciences du Goût et de l'Alimentation (CSGA), Dijon
12	Functional genomics of glioblastoma: from epigenetics to proteomic investigation of tumor initiating cell secretome	<b>Dr. Shreoshi Sengupta</b> Indian Institute of Science, Bangalore	<b>Dr. Philippe Marin</b> Institut de Génomique Fonctionnelle, Montpellier
13	Understanding mechanical size effects in metallic micro-wires: synergy between experiments and simulation	<b>Dr. Abhinav Arya</b> Indian Institute of Science, Bangalore	<b>Prof. Ludovic Thilly</b> Institut Pprime (UPR 3346 CNRS- Université de Poitiers-ENSMA) Futuroscope

S.No.	Project / Programme Title	Institutional Affiliation (From)	Name / Institution Visited (To)
14	A comparative Systems Biology Approach for Understanding Desiccation Tolerance in Forage Grasses and <i>Selaginella</i> sps.	<b>Dr. R.G. Sharathchandra</b> Centre for Bioinformtion Department of Studies and Research in Environmental Science Tumkur University Tumkaur	<b>Prof. Azeddine Driouich</b> IRIB-PRIMACEN-IBISA Université de Rouen, Mont- Saint Aignan
15	Wavelet Graphs for gravitational wave searches	<b>Dr Gayathri Vivekemanthswamy</b> Indian Institute of Science Education and Research, Thiruvananthapuram	<b>Dr. Eric Chassande-Mottin</b> Laboratoire, Astroparticule et Cosmologie laboratory (APC), University Paris Diderot Ile-De-France, Paris
16	Magnetic nanoparticles for hyperthermia and spintronics	<b>Prof. Varsha Banerjee</b> Department of Physics Indian Institute of Technology-Delhi New Delhi	<b>Prof. Julian Carrey</b> Laboratoire de Physique et Chimie des Nano-Objets INSA, Toulouse
17	Elucidation of conserved molecular signatures and regulators for blood cell progenitor maintenance	<b>Prof. Maneesha S Inamdar Jawaharlal</b> Nehru Centre for Advanced Scientific Research, Bangalore	<b>Dr. Lucas Waltzer</b> Centre de Biologie du Développement, UMR5547, Toulouse
18	sp3 C-H Bond Activation with Ruthenium(II) Catalysts: Application to the Synthesis of Aliphatic N-Heterocyclic Natural Products	<b>Dr Lalitha Gummidi</b> CSIR-Indian Institute of Chemical Technology, Hyderabad	<b>Dr. Christian Bruneau</b> UMR 6226: Institut des Sciences Chimiques de Rennes (ISCR) Organométalliques Matériaux et Catalyse Université de Rennes 1,Rennes
19	sp3 C-H Bond Activation with Ruthenium(II) Catalysts: Application to the Synthesis of Aliphatic N-Heterocyclic Natural Products	<b>Dr Murgesh Vinkatesh</b> CSIR-Indian Institute of Chemical Technology, Hyderabad	<b>Dr Christian Bruneau</b> UMR 6226: Institut des Sciences Chimiques de Rennes (ISCR) Organométalliques Matériaux et Catalyse, Université de Rennes 1,Rennes
20	Host-Virus Interactions and Antibody Therapy for Japanese Encephalitis	<b>Dr Chailendra Chanham</b> Vaccine & Infectious Disease Research Centre Translational Health Science & Technology Institute, Faridabad	<b>Dr. Sebastien Lacroix-Desmazes</b> Institut National de la Sante et de la Recherche Medicale (INSERM), Paris
21	Pathogenic Aspergillus: Interaction with innate immune cells	<b>Dr. Lakshmi Prabha</b> Aravind Medical Research Foundation Aravind Eye Hospital & PG Institute of Ophthalmology, Madurai	<b>Prof. Jean-Paul Latgé</b> Unité des Aspergillus Institut Pasteur, Paris
22	Pathogenic Aspergillus: Interaction with innate immune cells	<b>Dr. J. Jeya Maheshwari</b> Aravind Medical Research Foundation Aravind Eye Hospital & PG Institute of Ophthalmology, Madurai	<b>Prof. Jean-Paul Latgé</b> Unité des Aspergillus Institut Pasteur, Paris
23	Original biocompatible phosphorus dendrimers as a new strategy to tackle pulmonary tuberculosis	<b>Prof.Kishore K Srivastva</b> AcSIR, Senior Principal Scientist and Head, Division of Microbiology CSIR-Central Drug Research Institute Lucknow	<b>Prof. Anne-Marie Caminade</b> Laboratoire de Chimie de Coordination du CNRS Délégation Midi-Pyrenees Toulouse

## Mobility of French scientists / researchers supported under CEFIPRA projects during April-June, 2017

S.No.	Project / Programme Title	Institutional Affiliation (From)	Name / Institution Visited (To)
1	High anisotropy molecular magnets: Synthesis & Modelling	<b>Prof. J.P. Sutter</b> Laboratoire de Chimie de Coordination du CNRS, Toulouse	<b>Prof. S. Ramasesha</b> Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore
2	Symmetries and dynamics: worldsheet and spacetime	<b>Dr Sibasish Banerjee</b> Institut de Physique Théorique, CEA – Saclay, Villetaneuse	<b>Dr Debashis Ghoshal</b> School of Physical Sciences Jawaharlal Nehru University, New Delhi
3	CHROmITe: Assessment of CHromium Release from sukinda mining Overburden: an IsoTopic, chemical, physical and microbiological study	<b>Ms. Cécile Quantin</b> Institut De Physique Du Globe De Paris,Ile-De-France, Paris	<b>Prof. S. Subramanian</b> Department of Materials Engineering Indian Institute of Science Bangalore
4	CHROmITe: Assessment of CHromium Release from sukinda mining Overburden: an IsoTopic, chemical, physical and microbiological study	<b>Dr. Alexandre Gelabert</b> Institut De Physique Du Globe De Paris,Ile-De-France, Paris	<b>Prof. S. Subramanian</b> Department of Materials Engineering Indian Institute of Science Bangalore
5	CHROmITe: Assessment of CHromium Release from sukinda mining Overburden: an IsoTopic, chemical, physical and microbiological study	<b>Ms Sandra Viviana</b> Institut De Physique Du Globe De Paris,Ile-De-France, Paris	<b>Prof. S. Subramanian</b> Department of Materials Engineering Indian Institute of Science Bangalore
6	CHROmITe: Assessment of CHromium Release from sukinda mining Overburden: an IsoTopic, chemical, physical and microbiological study	<b>Dr. Benales Benitez</b> Institut De Physique Du Globe De Paris,Ile-De-France, Paris	<b>Prof. S. Subramanian</b> Department of Materials Engineering Indian Institute of Science Bangalore
7	Theoretical studies on ultra - cold Dipolar Gases	<b>Dr Paolo Pedri</b> Laboratoire de Physique des Lasers - CNRS - UMR7538 Université Paris 13 - Institut Galilée - 99 Villetaneuse	<b>Dr Rejish Nath</b> Indian Institute of Science Education and Research, Pune
8	Theoretical studies on ultra - cold Dipolar Gases	<b>Dr Kasi Kechadi</b> Laboratoire de Physique des Lasers - CNRS - UMR7538 Université Paris 13 - Institut Galilée - 99 Villetaneuse	<b>Dr. Rejish Nath</b> Indian Institute of Science Education and Research, Pune
9	Pathogenic Aspergillus: Interaction with innate immune cells	<b>Prof. Jean-Paul Latgé</b> Unité des Aspergillus Institut Pasteur Paris	<b>Dr. Lalitha Prajna</b> Department of Ocular Microbiology Aravind Eye Hospital, Madurai
10	Collective migration in the fly nervous system	<b>Dr. Angela Giangrande</b> 1 rue L Fries 67404 Illkirch	<b>Dr. K Vijay Raghavan</b> National Centre for Biological Sciences, TIFR, Bangalore
11	Decipher the symbiotic program in tropical legumes	<b>Prof. Fabienne Cartieaux</b> Laboratoire des Symbioses Tropicales & Méditerranéennes (IRD) Montpellier	<b>Prof. Maitrayee Das Gupta</b> University of Calcutta Kolkata
12	Decipher the symbiotic program in tropical legumes	<b>Dr Pierre CERNIC</b> Laboratoire des Symbioses Tropicales & Méditerranéennes (IRD) Montpellier	<b>Prof. Maitrayee Das Gupta</b> University of Calcutta Kolkata
13	Understanding mechanical size effects in metallic micro-wires: synergy between experiments and simulation	<b>Dr Ravi Raj Purohit</b> Institut prime (UPR 3346 CNRS-Université de Poitiers-ENSMA), Futuroscope	<b>Prof. Atul Chokshi</b> Indian Institute of Science Bangalore



Technology Development Board, Bpifrance financment and Indo French Centre for Promotion of Advanced Research (IFCPAR/CEFIPRA) joint Call for Proposal (s) from Indian & French Companies on Aeronautics; Automotive & Biotechnology

Technology Development Board (TDB), a statutory body of the Department of Science & Technology, Government of India and Bpifrance financment (hereafter referred as Bpifrance), a public investment bank, France have signed a Memorandum of Understanding (MoU) to carry out activities related to the exchanging of best practices and the setting up of coordinated measures to foster

technological exchanges and innovation, collaborations between companies, organizations and institutions of France and India.

Under this MoU, TDB and Bpifrance, France has launched a joint Call for proposal(s) for Indian & French Companies/ Industries/ SMEs". On behalf of TDB, this joint call is implemented by the Indo-French Centre for Promotion of Advanced Research (IFCPAR/CEFIPRA). The targeted areas (with sub-areas in focus, but not limited to) of the call are: **\*Aeronautics, \*\*Automotive & \*\*\*Biotechnology with special emphasis to health biotechnology.**

*Aeronautics	**Automotive	***Biotechnology
1. Aeronautics Equipment Units <ul style="list-style-type: none"> <li>• Design &amp; Production for Civil &amp; Military Applications</li> <li>• Mechanical, Hydraulic, Electronic &amp; Electrical Equipments</li> <li>• Optronics, Avionics &amp; Stealth features</li> </ul> 2. Airframe Manufacturing Units 3. Aircraft Engine Manufacturing Units 4. Logistics & Fleet Management Solutions	1. Automobile Manufacturing 2. Automobile Spare Parts Manufacturing 3. Electrical, Electronic and IT Equipments 4. Mobility & IoT Integration Technologies 5. Fuel efficiency / other Green Technologies 6. Electric Motors	1. Non-Invasive Tools & Devices including Imaging Techniques for Neurological, Cardiology and Oncology Investigations 2. Preventive Measures, Vaccines, Immunotherapies & Other alternative strategies in the areas of Non-Communicable Diseases

**Who can apply:**

Project shall have at least one Company from India and one from France each as joint applicant. A registered Company from India along with the registered company from France or vis-à-vis shall be the Joint Applicant(s) (1 + 1 model). Other companies may also participate as partners.

**How to apply:**

Details of the application submission process, eligibility conditions and other information are available on websites of TDB: [www.tdb.gov.in](http://www.tdb.gov.in) and CEFIPRA: [www.cefipra.org](http://www.cefipra.org)

Proposal submission is open during the entire year with quarterly cut off dates for the Financial Year 2017-18 these are as 30th June, 30th September, 31st December and 31st March.

Interested applicants can submit the full proposal through email to: [targetedprogramme@cefipra.org](mailto:targetedprogramme@cefipra.org); with a copy to: [tdbbpifrance@gmail.com](mailto:tdbbpifrance@gmail.com) and [zena.elkurdi@bpifrance.fr](mailto:zena.elkurdi@bpifrance.fr).

For more information, please contact :

- CEFIPRA : Dr. Aparajita Das ([aparajita@cefipra.org](mailto:aparajita@cefipra.org))
- TDB : Dr. Preeti Sahai ([preeti.sahai@gmail.com](mailto:preeti.sahai@gmail.com))
- Bpifrance : Ms Zena EL KURDI ([zena.elkurdi@bpifrance.fr](mailto:zena.elkurdi@bpifrance.fr))



Indo-French Centre for the Promotion of Advanced Research/ Centre Franco-Indien pour la Promotion de la Recherche Avancée (CEFIPRA) is a model for international collaborative research in advanced areas of Science & Technology. The Centre was established in 1987 being supported by Department of Science & Technology, Government of India and the Ministry of Foreign Affairs and International Development, Government of France. CEFIPRA is actively involved in supporting Indo-French Science, Technology & Innovation system through various activities. Collaborative Scientific Research Programme focuses on Academia-to-Academia Collaborations between Indian and French Academic Collaborators in various domains. Industry Academia Research & Development Programme emphasizes to develop the linkage between Industry and Academia from France and India. Dedicated mobility support programmes of CEFIPRA provide exposure to young researchers of the working, social and cultural environment of the partnering country. Targeted Programmes of CEFIPRA provide platform for Indian and French National Funding Agencies to implement programmes for specific areas. Innovation programmes through PPP mode, are the programmes where Industries join hands with CEFIPRA as a funding partner for supporting R & D in defined priority areas.



For further information, please contact:

**Dr Mukesh Kumar**  
**Director**

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