

# 2020 Call for Applications for IBS Chief Investigators

The Institute for Basic Science (IBS) is a Korean government-funded research institute founded in November 2011 with the purpose of driving forward the development of basic science in Korea through large-scale, long-term, group research. IBS has so far established 30 Research Centers in mathematics, physics, chemistry, life sciences, Earth science, and interdisciplinary sciences. The selection of chief investigators, who will operate a research group within existing Pioneer Research Centers, will be limited to a maximum of two. We look forward to receiving many applications from excellent scientists.

January 3, 2020  
IBS President Noh Do Young

## 1. Overview

- Pioneer Research Center (PRC): A PRC is a HQ Center to explore new territories of basic science and will be organized by gradually selecting and appointing chief investigators (CIs).
  - A PRC will consist of up to five CIs and each CI will be given about KRW 1 to 1.5 billion annual operation budget, including labor costs and other expenses.
    - ※ A separate consultation will take place for expensive research equipment and facilities that are difficult to construct by individual groups.
- Applications may be submitted only for the existing PRCs\* or for the PRC planned to launch\*\*.
  - \* (Mathematics) PRC for Mathematical and Computational Sciences,  
**(Interdisciplinary) PRC for Biomolecular and Cellular Structure**
  - \*\* (Physics) PRC for Quantum Information Science (Tentatively named, to be launched in July 2020)
  - ※ Those selected as new CIs are required to commence his/her research by December 2020. (The commencement date may be adjusted under special circumstances)

## 2. Research Areas

- Interdisciplinary areas that can have collaboration with the research group in the PRC for Biomolecular and Cellular Structure. (ex. Cryo-electron tomography, Micro-electron diffraction, XFEL crystallography, Super-resolution imaging, Single-molecule biophysics, High-speed atomic force microscopy, Molecular dynamics, Algorithm/Software development for Cryo-EM image processing, AI-

based image processing, etc.)

- Information of the existing research group in the PRC

- **Introduction of the Protein Communication Group**

Professor KIM Ho Min is the Chief Investigator of the Protein Communication Group in the PRC for Biomolecular and Cellular Structure, established in December 2018.

The research group is undertaking innovative research to discover the novel binding targets of uncharacterized LRR-containing proteins and their cellular signaling network. These novel binding partners for uncharacterized LRR-containing proteins as well as the supramolecular signaling complexes will be the key targets for our structural research.

- **List of Research Facilities/Equipment available in the PRC**

- 300kV Titan Krios G4 equipped with K3 direct detector and BioQuantum K3 imaging filter
- 200kV Glacios equipped with Falcon III direct detector
- Protein Expression and Purification Facility
- Mosquito Xtal3 for protein crystallization screening

- **Homepage:** <https://www.ibs.re.kr/protein/>

### 3. Requirements and Selection Criteria for CIs

- Requirements

- An emerging researcher who is capable of organizing his/her own research group and carrying out challenging, creative, and independent research in basic science.
- A researcher whose capability is equivalent to that of a PI at a globally renowned research institute or who has great potential to reach the aforementioned level in the near future.

- Selection criteria

- Select candidates after comprehensively examining applicants' scientific excellence and adequacy of submitted research plans based on qualitative evaluation by domestic and overseas scholars.
- Scientific excellence: Supremacy of research outcomes, research capabilities and

potential, etc.

- Adequacy of research plan: Adequacy and feasibility of his/her group organization and operation plan, research budget and its allocation, and mid- to long-term development plan and visions.

#### **4. Selection Procedure**

- Candidate search by February 2020
- Selection of in-depth evaluation candidates by April 2020
- In-depth evaluation by August 2020
- Comprehensive evaluation and consultation by Scientific Advisory Board by October 2020
- Negotiation and appointment by November 2020

#### **5. Research Group Budget**

- The size of annual budget of the proposed research group would be less than KRW 1.5 billion including labor costs and other expenses.
- The proposed budget on the application form will be carefully reviewed during the selection and evaluation procedure for CIs. Once the selection is completed, the proposed budget will be adjusted and approved by the IBS Research Review Committee.
- The research plan, which is required to be included in the application form, must have details (e.g., research period, list of necessary facilities and equipment, required budget, annual plan) of plans to collaborate with the existing research groups, plans to utilize the existing facilities, and start-up expenses for large-scale facilities and equipment that should be constructed at an early stage of CI research group organization.
- Start-up expenses will be provided separately after deliberation. The expenses should be separately stated in the application.
- ※ Whether or not to provide the expenses or the provided amount may change according to the circumstances of IBS.

## 6. Details of CI Position

- CIs are required to work full time in principle. Their labor costs will be negotiated with the IBS President and will become effective upon signing of the contract.
- CIs will be given autonomy in organizing their research group, including personnel, research plan, and budget allocation.
- CIs are not allowed to apply for other Korean government-funded research projects in principle.
  - ※ Those who are participating in Basic Science Research Programs of the National Research Foundation of Korea (NRF) may commence their research as IBS CIs after the completion of the (phased) programs.
- Review on each CI group will take place every three years except for the first Review, which takes place five years after the research commencement. Review results will determine whether to provide continued support. If it is decided to close a research group, a one-year grace period will be given.

## 7. Application Submission

- Fill in the application form (Attachment) **in English**, save it as a combined PDF file (file name: **applicant name\_CI\_submission date**), and send it to [apply@ibs.re.kr](mailto:apply@ibs.re.kr).
- **Submission deadline: Saturday, February 29, 2020 (KST)**
- Those who qualify for the in-depth evaluation will be notified in May 2020.

## 8. Contact for Inquiries

- Application, selection, and evaluation procedure for CIs:  
Naeyang Jeong, Research Evaluation Team (+82-42-878-8190, [nyjeong@ibs.re.kr](mailto:nyjeong@ibs.re.kr))
- Please refer to IBS homepage for CFA, FAQ, and etc.:  
[https://www.ibs.re.kr/eng/sub04\\_02\\_04.do](https://www.ibs.re.kr/eng/sub04_02_04.do)