



## ADVERTISING NOTICE

### competition for vacant positions within the PCCDI project 24/2018

The **National Institute for Marine Research and Development "Grigore Antipa" - NIMRD Constanta**, headquartered in 300 Mamaia Blvd., Constanța, Romania, hires two scientific research assistants in the field of microbiology/molecular biology and genetics as part of the PCCDI Complex Project *"Underwater geological structures favorable to the generation and accumulation of biogenic methane - associated geobiochemical processes - uBioGas"* (Funding Contract No. 24 PCCDI / 2018, component projects 1, 2, 3). The job positions are full-time for a specified period (20 months within the project plus 2 years), activity being estimated to begin on 3rd January 2019.

#### Requirements for filling the positions:

- Long-term graduate studies with a Bachelor's degree in a faculty accredited under the law. Enrollment in a master or doctoral program in microbiology/molecular biology and genetics/bioinformatics is an advantage.
- Basic knowledge in: General Microbiology, Aquatic microbiology, Cell biology, Molecular biology, Genetics, bioinformatics, biochemistry
- Knowledge of IT, data processing software, software with bioinformatic application, Internet browsing skills
- Foreign languages: English, very well
- Knowledge of the topic and bibliography specified in the announcement
- The average score of study years + bachelor degree should be at least 7.50.

**Skills and abilities:** team player, communication skills, working independently, ability to work on the sea

#### Main Responsibilities:

- Assimilation of the knowledge needed to accomplish the assigned tasks within the project;
- Ongoing training and honing in the field of the position topics;
- Taking part in microbiological, molecular and genetic analyzes using the specific equipment of NIMRD;
- Taking part in the processing, interpretation and dissemination of project results;
- Taking part in different support activities specific to NIMRD's Radioactivity Lab.
- Taking part in various specific support activities within the NIMRD's Marine Microbiology and Molecular Biology Laboratory

#### Requested documents:

- 1 - application to enter the competition;
- 2 - a xerox copy of the identity document or any document attesting to the identity, according to the law;
- 3 - dated and signed Europass curriculum vitae;
- 4 - copies of the diplomas certifying the studies completed - the baccalaureate diploma, the bachelor's degree diploma with the transcript of record sheet, the master's degree, as well as other documents certifying the accomplishment of specializations;
- 5 - documents proving the length of service - copy of the workbook, revision report, certificates of seniority;
- 6 - criminal record or sworn statement that the applicant has no criminal record to make him/her incompatible with the job he/she is applying for;
- 7 - xerox copy of the birth certificate;
- 8 - xerox copy of the marriage certificate, if applicable;
- 9 - medical certificate, certifying the appropriate health status, issued by the family doctor or specialized health care units at least 6 months before the competition;





10 - certificate to show the quality of master's program/doctorate program (as the case may be).

The competition methodology for vacancies or temporary vacancies within NIMRD is displayed at NIMRD's notice board, on the homepage [www.rmri.ro](http://www.rmri.ro), or printed in NIMRD's Human Resources Office.

**Type of competition stage, place and date:**

Stage 1: Selection of the files submitted for the competition;

Stage 2: Written test;

Stage 3: Interview

**The schedule and the bibliography related to the positions of scientific research assistant will be attached to the competition advert notice.**

**Deadline for submission of the application file:** Entry to the competition is made within 15 days from the date of publication of the announcement, and applications shall be sent to the address e-mail [office@alpha.rmri.ro](mailto:office@alpha.rmri.ro) or filed at NIMRD "Grigore Antipa" headquarters, 300 Mamaia Blvd., Constanța.

**Location of the competition:** NIMRD "Grigore Antipa" headquarters, 300 Mamaia Blvd., Constanța

**Additional information:** telephone 0241-543288 or 0241-540870 int. 129, contact person: **Ms. Oana MEITA**, Head of Human Resources Office

**DIRECTOR GENERAL,  
Dr. Ing. Simion NICOLAEV**







## COMPETITION SCHEDULE Research Assistant (2 job openings)

The contest for filling the positions of scientific research assistant in the field of microbiology/molecular biology and genetics will consist of:

- **Selection of applications** submitted and display of eligible files: 1 working day after the deadline for application;
- **Appeals of file selection:** 1 business day after results display;
- **Settlement of appeals to file selection:** 1 business day.
- **Written test:** elaborating a written essay on the subject, lasting 3 hours. Candidates who have obtained the minimum score of 7 in the written test are admitted to the interview. The written test will be held on the day after the settlement of the complaints regarding the selection of the files:
  - **Appeals of the written test:** 1 business day after results display;
  - **Settlement of appeals for the written test:** 1 business day.
- **Interview:** An interview in the topic of the job. The interview will be held only by candidates who have obtained the minimum score of 7 in the written test. The interview will be held on the day following the settlement of the written contest appeals. The result of the interview is displayed the same day of the interview.
- **The final results** will be displayed within 3 working days of the written test. The final score is calculated as the arithmetic mean of the scores obtained at the written test and the interview and must be at least 7. The candidate who obtained the highest score among the candidates who competed for the same job is considered admitted, provided that they have scored the minimum necessary.

Only appeals for procedural defects shall be admitted.

Head of Human Resources Office,

Legal Adviser Oana MEITA





## Topics and Bibliography

For the competition for 2 full-time scientific research assistant positions, within the PCCDI Complex Project "Underwater geological structures favorable to the generation and accumulation of biogenic methane - associated geobiochemical processes - uBioGas" (Funding Contract No. 24 PCCDI / 2018, (Funding Contract No. 24 PCCDI / 2018) - component projects 1, 2, 3

### Topics:

1. Microbial metabolism: Nutrition and respiration of microorganisms. Classification of microorganisms according to the nutrition and oxygen requirements.
2. The role of microorganisms in marine biogeochemical cycles. The carbon cycle (C).
3. Methanogenic and methanotrophic bacteria: physiology and taxonomy, ecology, role in the global carbon cycle.
4. Methods of cultivation of microorganisms: cultivation on solid media, cultivation on liquid media
5. Methods of isolation and analysis of nucleic acids. Sequencing of nucleic acids. In vitro amplification of nucleic acid sequences
6. Molecular Biology databases
7. Bioinformatics of nucleotide sequences alignment. Comparative analysis of biological sequences.
8. Bioinformatics of gene expression.

### Selected references:

- Arthur M. Lesk., 2008, *Introduction to Bioinformatics*, Third Edition, Oxford Univ. Press.
- Benga, G., 1985, *Biologie celulară și moleculară*. Editura Dacia.
- Brown, S.M., 2000, *Bioinformatics: A Biologist's Guide to Biocomputing and the Internet*, Eaton Publ., New York.
- Drăgan-Bularda, M., 2000, *Microbiologie generală, Lucrări practice*, Cluj-Napoca.
- Georgescu S.E, Dudu A., Costache M., 2016, *Tehnici de biologie moleculară - principii și aplicații practice* Publisher: Editura Universității din București, ISBN: 978-606-16-0729-7.
- Hanson, R. S. & Hanson, T. E. *Methanotrophic bacteria*. *Microbiol. Rev.* **60**, 439–471 (1996).
- Murrell, J. C. & Dalton, H. *Methane and Methanol Utilizers* (Plenum, New York, 1992).
- Patricia M. Glibert, Todd M. Kana (Eds.), 2016. *Aquatic Microbial Ecology and Biogeochemistry: A Dual Perspective*, Springer Nature.
- Paul F. Kemp, Jonathan J. Cole, Barry F. Sherr, Evelyn B. Sherr, 1993. *Handbook of Methods in Aquatic Microbial Ecology*. ISBN 0-87371-564-0.
- Pevsner, J., 2009, *Bioinformatics and functional Genomics*, Wiley-Blackwell, New Jersey.
- Starr, M. P., Stolp, H., Trüper, H. G., Balows, A. & Schlegel, H. G. *The Prokaryotes* (Springer, Berlin, 1981).
- Xiong, J., 2006, *Essential Bioinformatics*, Cambridge Univ. Press, Cambridge.
- Zarnea G. 1983, *Tratat de microbiologie generală, Vol I: Virologie generală, anatomie bacteriană*, Ed. Acad. Rom., București
- Zarnea, G., 1994, *Tratat de Microbiologie generală. Vol. V: Ecologia microorganismelor*. Ed. Acad. Rom., București

Project Responsible,  
Dr. cs I Elena STOICA

