JUNIOR RESEARCHER COMPETITIVE RECRUITEMENT

Application guide

2022 campaign

Institut de recherche pour le développement
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https://www.ird.fr/concours-chercheurs
Presentation of the IRD

IRD is a French research organisation working with partners in the intertropical zone and French overseas territories to meet international development challenges in Southern countries. Improving health conditions, understanding societal changes, and protecting the environment and natural resources are among its main concerns in its efforts to meet the Millennium Development Goals (MDG).

IRD is a French public scientific and technological establishment (EPST) operating under the joint authority of the French Ministries of Research and Foreign Affairs. From its headquarters in Marseille and its two centres in mainland France (Bondy and Montpellier), it operates in around fifty countries in Africa, Latin America, Asia, and the Mediterranean.

As part of its role as a research operator, IRD develops multi-disciplinary projects in three major fields of science, namely health, societies, and environment and resources. Each of these fields is managed by a scientific department which ensures the links between the areas considered as priorities by the IRD to fully meet the Millennium Development Goals.

- Department of Internal and Surface Dynamics of Continents (DISCO)
- Department of Ecology, Biodiversity and Continental Ecosystem Functioning (ECOBIO)
- Department of Oceans, Climate and Resources (OCEANS)
- Department of Health and Societies (SAS)
- Department of Societies and Globalisation (SOC)

These missions for and with Southern countries are based on joint and individual research projects in partnerships for development, and include periods of expatriation in Southern countries. The Institute’s researcher recruitment policy falls within this framework.

Researchers at the Institute are subject to the French general civil service regulations. They are governed by the amended decree no. 83-1260 of 30 December 1983 determining the statutory provisions common to the body of civil servants in PSTEs (public scientific and technological establishments) and the amended decree no. 85-1060 of 2 October 1985, concerning the specific regulations pertaining to civil servants within the Institute. Researchers at the Institute are divided into two groups:

- Senior researcher (DR researcher - Directeur de recherche), also divided into 3 grades:
  - exceptional class (DRCE),
  - 1st class (DR1),
  - 2nd class (DR2),
- Junior researcher (CR researcher – chargé de recherche), also divided into 2 grades:
  - exceptional class (CRHC),
  - normal class (CRCN).
Reference system for research for development

Applicants for competitive recruitment for a junior researcher position at IRD will have noted that, pursuant to:

- law no. 82-610 dated 15 July 1982 on the orientation and programming of research and technological development in France,
- amended decree no. 84-1130 of 5 June 1984 defining the Institute’s missions,
- the IRD’s performance contract,
- and the IRD’s commitment to sustainable development and its “responsible research” and “capacity building for Southern countries” dimensions,

The missions of a researcher at IRD comprise:

- the development of knowledge;
- the transfer and application of knowledge in companies and in all fields contributing to the progress of society;
- the distribution of scientific and technical information and culture throughout the population and in particular among young people;
- participation in initial and further training programmes;
- capacity building for the benefit of Southern countries;
- research administration;
- the promotion of excellence in research in partnership with institutions in Southern countries through the co-development of research programmes based on demand from those countries, the release of research results to stakeholders, the promotion of dialogue between science and society, and the co-publication/joint promotion of the research results;
- the promotion and completion of scientific and technological research work likely to contribute to the economic, social and cultural progress of developing countries and/or endeavouring to help those countries take control of their development.

These missions for and with Southern countries are based on joint and individual research projects in partnerships for development, and include periods of expatriation in Southern countries.
General terms for competitive application

Before applying, the applicant will take time to consult the prerequisites for competitive application, the profiles of the position offers, IRD’s specific missions (https://www.ird.fr/concours-chercheurs) and the ensuing selection criteria.

Admission to compete

Administrative requirements
Competitive selection is based on qualifications and works. There are no conditions of nationality or age. In order to be admitted to competitive selection, applicants must:

1. enjoy full civil rights and not have any convictions for offences which are incompatible with the performance of a public service,
2. have no record of criminal convictions (necessary in the event of admission to competitive selection),
3. have fulfilled any obligations imposed by the national service code,
4. meet the conditions of physical fitness required to perform the duties involved. However, these latter conditions are not applicable to applicants recognised as “disabled workers” by the MDPH (Maison Départementale des Personnes Handicapées - local disability centre). These applicants will make contact with the administrative services to ensure that the material conditions of the hearing can be adapted.

Conditions regarding diplomas and professional experience
In order to be admitted for competitive selection for the normal class junior researcher (CRCN), applicants must meet one of the following conditions:

- hold a doctorate as provided in article L.612-7 of the French Education Code,
- hold a PhD or doctoral level of education,
- hold a doctorate in engineering,
- hold a study and research diploma in dental science (DERSO),
- hold a study and research diploma in human biology (DERBH),
- show proof of qualifications or scientific works considered equivalent to the above-mentioned diplomas; in this case, applicants should submit an equivalence request.

An equivalence request and a translation into French are mandatory for foreign diplomas.

For the equivalence request or the diploma exemption request, you must follow the instructions in the Equivalence tab of the IRD Emploi platform.
Positions open to competitive selection 2022

The positions offered in the 2022 competition are divided into 6 competitions corresponding to the 5 specialised scientific commissions and one inter-commission competition.

The positions offered are not linked to specific geographical assignments. The candidate has the possibility to propose three positions according to his or her discipline and in coherence with his or her research project during the application process.

The applicant must propose an assignment within an IRD unit (see https://lab.ird.fr). It is strongly advised to contact each of the unit directorates in which the candidate wishes to work before submitting the application.

In case of admission, the assignment is validated by the scientific department(s) concerned and may differ from the wishes expressed in the application file.

Specialised scientific committee « Physics and Chemistry of the Earth’s Environment »
(CSS1)

Brief presentation of the committee and its themes:

- **Areas of competence:** the “Earth system” and its planetary environment, up to the boundaries of the biosphere and interactions with societies. It brings together different communities focused on studies of the atmosphere, the water cycle, oceans, soil, sub-soil and bedrock, and their relationships.
- **Issues:** better understanding the processes behind climate variability, trends and extremes, natural hazards and risks, water resources, and mineral and energy raw materials, as well as the effects of global and anthropic changes on environments and resources in regions of the South.
- **Core disciplines:** biochemistry, chemistry, climatology, ecology, geochemistry, geography, geology, geophysics, hydrology, mathematics, oceanography, pedology, physics and statistics.

**Offer of positions:** 4 research fellows of normal grade on the themes of the commission, including as a priority 1 research fellow on the theme of “Climate change mitigation: new energies and innovations”

Details of the priority position:

Developing and emerging economies face a dual energy challenge in the 21st century: to meet the needs of billions of people who still lack access to basic modern energy services, while at the same time participating in a transition to clean, low-carbon energy systems. The climate emergency requires a significant acceleration of innovation in energy efficiency, decarbonization, fuel diversification, and pollutant emissions reduction.

The successful candidate will develop a project including one of the following aspects:

- the development and integration of new variable energies (photovoltaic, wind, biofuels, hydraulic, geothermal, or natural hydrogen) in the energy system of Southern countries
- energy development models, their environmental impact on ecosystems and society with a systemic approach
• carbon dioxide removal (CDR), by chemical, physical or biological means, with a view to mitigating climate change.

The research project should be based on an interdisciplinary approach that can combine experimentation, in-situ observation (by using existing methods, tools, sensors or by proposing technological innovations, through participatory science), satellite observation, socio-economic data, digital modeling, and data science (including those developed in artificial intelligence).

**Specialised scientific committee « Biological and Medical Sciences » (CSS2)**

**Brief presentation of the committee and its themes:**
- **Areas of competence:** human health, nutrition and living sciences (animals, plants, viruses, microbiology) from a genetic and physiological viewpoint. It brings together different communities focused on nutrition, epidemiological and sanitary transitions, factors in the emergence of diseases, infectious agents and their relationship with their host and with vectors, prevention, treatment, the control of transmissible and non-transmissible diseases of significance in Southern countries, plant biology, microbiology, plant/micro-organism molecular interactions, and the living world in general.
- **Issues:** improving human and plant health, characterising and promoting biodiversity of the living world and contributing to food and energy security in the Southern countries.
- **Core disciplines:** biochemistry, bioinformatics, biology, biostatistics, biotechnologies, medical entomology, genetic epidemiology, genetics, genomics, immunology, infectology, nutrition, pharmacology, physiology and public health.

**Offer of positions:** 4 research fellows of normal grade on the themes of the commission.

**Specialised scientific committee « Science of Ecological Systems » (CSS3)**

**Brief presentation of the committee and its themes:**
- **Areas of competence:** analysis and characterisation of biodiversity and its role in the functioning of terrestrial and aquatic ecosystems. It brings together different communities focused on the dynamics of populations, ecology, evolution and biotic interactions in terrestrial and aquatic environments (marine and fresh waters).
- **Issues:** better understanding the interactions between living species and their environments, and the related vulnerabilities, to enable sustainable management of natural resources, ecosystems and their adaptation to global changes in Southern regions.
- **Core disciplines:** agronomics, biology, ecology, soil sciences, genetics, hydrobiology, oceanographic biology and systematics.

**Offer of positions:** 4 research fellows of normal grade on the themes of the commission, including as a priority 1 research fellow on the theme of “BlueFood”.

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Details of the priority position:

Blue food refers to food derived from the capture or farming of aquatic species in marine or freshwater environments. These foods are essential to the nutrition, health, livelihoods and incomes of billions of people around the world. They are thus considered a key component of a healthier and more equitable food system. However, significant gaps in knowledge of aquatic food systems remain and this contributes to the fact that aquatic products are largely absent from major food policy dialogues.

The successful candidate will develop research that focuses on the analysis of aquatic food systems and their linkages to human nutrition and health, local or more global economies, and environmental health. This may include, for example, factors in marine food value chains, life cycle assessment and management of aquatic food supply chains in a changing climate, understanding specific constraints and opportunities at the level of fishers and aquaculture producers, and links between environment and nutrition in integrated approaches.

Specialised scientific committee « Human and Social Sciences» (CSS4)

Brief presentation of the committee and its themes:

- **Areas of competence**: knowledge of populations, societies and cultural systems of Southern countries, and understanding global and local development challenges. It brings together different communities focused on the relationships between development, governance and the environment; between development, education and knowledge; between vulnerabilities inequalities and growth; between borders and social and spatial dynamics.
- **Issues**: understanding the conditions and determining factors in sustainable development in Southern countries through their specific forms and dynamics.
- **Core disciplines**: anthropology, archaeology, demography, law, economics, geography, history, linguistics, political science and sociology.

**Offer of positions**: 4 research fellows of normal grade on the themes of the commission.

**Recommendations of the committee**:

The CSS4 draws the attention of the candidates to the attention to be paid to the presentation of their publications.

It is important to check that the bibliographic references recorded in Peer-reviewed and indexed are included in the journalbase database (https://journalbase.cnrs.fr/) which is the reference database used by the CSS4.

If not, they must be included with the other publications.

Specialised scientific committee « Data Sciences and Models » (CSS5)

Brief presentation of the committee and its themes:

- **Areas of competence**: engineering sciences (data collection, processing, modelling, archiving and perpetuation) and the developments applied to complex systems. Its specialities cover computing, mathematics, statistics, econometrics and signal physics.
- **Specialities**: developing the Institute’s cross-disciplinary themes in line with partners’ requirements and the challenges of fundamental and applied research based on quantitative methods of modelling and observation to process and exploit data.
Core disciplines: biostatistics and bioinformatics, econometrics, geomatics, database management, management and use of big data, computing, mathematics, modelling high-performance simulation and calculation, remote sensing and statistics.

Offer of positions: 3 research fellows of normal grade on the themes of the commission, including as a priority 1 research fellow on the theme of “Processing of massive heterogeneous and complex data”

Details of the priority position:
Sustainability science consists of an inter and transdisciplinary approach to major societal challenges and is de facto confronted with the processing of data of very diverse nature, collected in various environments at multiple scales of space or time, with heterogeneous community practices. The challenge is to extract information from these data sets in order to better understand environmental variations or interactions between societies and environments. The candidate will develop methods for processing massive, heterogeneous, and complex data in a sustainability science approach. These methods could be, for example, environmental and biodiversity data (at the scale of the individual, DNA,...), socio-demographic and health data for One Health approaches or population vulnerability and hazard data for risk analysis. The methodological tools developed by the candidate may use machine learning, intelligent agents, deep learning on graphs, etc. A possible digital twins’ approach may allow, for example, to understand processes involving complex phenomena through hybrid or assimilation approaches coupling physical models and a flow of heterogeneous and massive data.

Inter-CSS competition « Sustainability science »

Job offer: 4 research fellows of normal grade on the profile "Science of sustainability and development: a transdisciplinary approach”

Details of the post: see the detailed profile on the competition website https://www.ird.fr/concours-chercheurs.
Practical procedure for applications

The registration process for the competition is dematerialized. It is part of a digital and ecological transformation journey.

Candidates can apply for the researcher competitions:

- Either, online, from the IRD Emploi website, https://emploi.ird.fr, by creating a candidate account, completing an application and attaching the mandatory supporting documents,
- Or by filling in a paper application form and sending it to the organising department before the closing date for registration (the postmark will be taken as proof).

Please note: Candidates wishing to apply for more than one competition must complete as many applications as there are competitions applied for.

Your application can be modified until 15 March 2022 - 5.00pm (UTC+1).

To help you register on the IRD Emploi website, please follow the IRD Emploi User Guide where you will find the information you need to:

- Create your account
- Complete your application, validate it and submit it
- Withdraw or modify a submitted application

What documents must be included for your application to be complete?

We invite you to provide all the requested documents in an unprotected pdf format (without password):

- the required diplomas
- the documents comprising your scientific file (templates to be downloaded in the corresponding tab): research activity report, resume, summary sheet, sheet of major works and list of publications
- if required, documents to support your equivalence request(s) (degree, works or years of experience in a research position)
- if required, documents to support a request for an adjustment and/or degree exemption.

Important: The French National Research Institute for Sustainable Development ("IRD") is particularly committed to privacy and the protection of personal data and is engaged in a process of protection of personal data that it addresses for its needs.

In accordance with the applicable regulations, namely the General Regulation on the Protection of Personal Data (RGPD) (2016/679 of 17 April 2016) and the amended Data Protection Act you may exercise your right of access and of rectification before our data protection officer (dpd@ird.fr) or at the following postal address, for the attention of the R & D Data Protection Officer: IRD – Direction des affaires juridiques - 44, boulevard de Dunkerque CS 93009 - 13672 Marseille Cedex 02 – France.

The right to object does not apply to the current processing. Nonetheless, candidates have the right to object, for legitimate reasons, to the publication of their personal data on ird.fr or on the Institute’s intranet interface.

In the event of a response that you consider unsatisfactory on the part of the IRD and that you consider that your computer rights and freedoms are not respected, you have the possibility of lodging a complaint with the CNIL: https://www.cnil.fr or by post.
What happens next - Standard path taken by an application

On receipt of the applications, the Recruitment and career office examines the eligibility of the applications and informs by email the applicant of the status of their application using the ‘acknowledgement of receipt’ form above: eligible application, incomplete application, applicant sent to the equivalence commission or application not admissible for any other reason.

The preliminary admission board

Applicants whose applications are eligible from an administrative point of view will then be pre-selected by the appropriate appointments committee, based on a review of the application file. The pre-selected candidates will be called individually for an admission test which examines the applicant’s scientific value. This test comprises a hearing of the applicants before a board appointed on decision of IRD’s Chief Executive Officer in pursuance of the provisions of amended article no. 83-1260 of 30 December 1983, namely comprising:

- at least four members of the competent scientific commission,
- where justified by the requirements of scientific expertise but where the proportion does not exceed 50% of the board, (an) other scientific personality(-ies) appointed by IRD’s Chief Executive Officer on advice from the chair of the competent scientific commission.

The exact duration of the hearing is indicated on the notification to attend. The hearing comprises the applicant’s oral presentation and an interview with the board.

Applicants wishing to be auditioned in English must specify this when registering on the IRD Emploi website. After consultation with the board concerned, they will receive an individual reply.

Applicants who are based at some distance will provide a mobile phone number and an active email address, and will also telephone the Recruitment and career office (+33 (0)4.91.99.93.18) regularly to enquire about admissions session dates per commission; these dates will also be indicated on the Institute’s website (https://www.ird.fr/concours-chercheurs).

Candidates will be invited individually by electronic means for online registrations or by post for offline registrations. The non-receipt of this letter does not engage the responsibility of the Institute.

Depending on the health situation, the auditions may be held by videoconference for all candidates.

Once the hearings and deliberations have been completed, the preliminary admission board draws up a list of eligible applicants in order of merit. The related report is immediately posted at the Institute’s head office and on its website. Each applicant is informed by email of the outcome of the eligibility assessment.

N.B. Travelling costs are borne by applicants.
The admission board

The applications of eligible applicants are sent to a multi-disciplinary admission board appointed on decision of the Institute's Chief Executive Officer pursuant to the provisions of article 14 of amended decree no. 85-1060 of 02 October 1985, comprising, other than the CEO or their representative, who acts as chair:

- five members of the Institute’s Scientific Board;
- five scientific personalities from the Institute or elsewhere.

On the basis of the report produced by the preliminary admission board, the admission board examines the eligible applications and, after deliberation, establishes the main admission list in order of merit of the applicants that they declare eligible.

Applicants included on the main list are notified individually of their admission by IRD’s Chief Executive Officer. The new officer is officially appointed once they have accepted the position. The applicant has a period of 15 days of receipt of the recorded delivery by email from the Recruitment and career office within which to accept or turn down the position. First day on the job must be in the year of the competition (Between October 1 and December 31, 2022).

In the event of withdrawal of applicants on the main admission list or vacancies occurring between two competitive selection sessions, applicants included on the additional list are contacted. Validity of this additional list automatically expires on the start date of the 1st test of the following round of competitive selections and, at the very latest, two years after the list was established.

Appointment

Appointments are made in the order of inclusion on the main admission list, then in the order of inclusion on the additional list. The status of the new CR researcher stipulates that:

- they are appointed as probationary officials at IRD,
- the duration of their probationary period is 12 months and can be renewed once.
- CR research can be assigned in mainland France, in French overseas territories or in one of the Institute's partner countries.

It should be noted that successful applicants will have to work in Southern countries and that their professional project at the IRD will therefore include periods of expatriation.

At the time of recruitment, the competent scientific commission will appoint a scientific mentor for each new Research Fellow. S/h will accompany a normal class junior researcher (CRCN) throughout the duration of the one-year probationary period.

Before the end of the first probationary year, trainee CR researchers must draw up an activity report on which their scientific mentor, Unit Director and the Department Director will issue a written opinion. This report and these opinions will be submitted to the competent commission which will propose either:

- the appointment to a permanent post after the first probationary year ;
- an extension of the probationary period * ;
- dismissal *.

* In the latter two cases, the full file is submitted for the opinion of the competent commission. The Chairman of the IRD will then reach a decision.
Careers at IRD

Careers at IRD are linked to a salary scale (provided for information purpose):

<table>
<thead>
<tr>
<th>Groups</th>
<th>Grade</th>
<th>Category</th>
<th>Index (INM)</th>
<th>Indicative monthly gross salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directeur de Recherche (DR)</td>
<td>2ème classe</td>
<td>A</td>
<td>662</td>
<td>3102,14 €</td>
</tr>
<tr>
<td></td>
<td>1ère classe</td>
<td>A</td>
<td>1164 C3</td>
<td>5473,27 €</td>
</tr>
<tr>
<td>Chargé de Recherche (CR)</td>
<td>Hors classe</td>
<td>A</td>
<td>632</td>
<td>2961,56 €</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>825 A3</td>
<td>4531,38 €</td>
</tr>
<tr>
<td></td>
<td>Classe normale</td>
<td>A</td>
<td>463</td>
<td>2169,62 €</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>825</td>
<td>3865,97 €</td>
</tr>
</tbody>
</table>

Access to higher grades is granted via promotions according to choice, to which the officer is eligible depending on the following conditions of seniority (provided for information purpose):

<table>
<thead>
<tr>
<th>Promotion to grade</th>
<th>Years of experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRHC</td>
<td>7ème échelon et 4 ans en CRCN</td>
</tr>
<tr>
<td>DR1</td>
<td>4 ans en DR2</td>
</tr>
<tr>
<td>DRCE 1er échelon</td>
<td>18 mois au 3er échelon DR1</td>
</tr>
<tr>
<td>DRCE 2er échelon</td>
<td>18 mois au 1er échelon DRCE</td>
</tr>
</tbody>
</table>

Researchers who fulfil the conditions of seniority set out above may submit an application for promotion during the annual appraisal campaign. Promotions according to choice are decided on by the Institute’s Chief Executive Officer on advice from the relevant bodies.

The change of step is made automatically by seniority, except for the DRCE.

Admission to the group of senior researcher (DR) is granted through competitive selection.