

A*MIDEX-Multiwave Technologies Industrial Chair MRI FOR ALL (M4A)

Guide for Applicants

1. About the M4A Industrial Chair

The MRI4All Industrial Chair is a 2,9M€ program, co-funded by A*MIDEX foundation and Multiwave Technologies for 4-years (2024-2027). This industrial Chair involves two research laboratories, Institut Fresnel (Dr. Abdeddaim and Dr. Dubois), and CRMBM (Dr. Stellmann, MD, and Dr. Bendahan) and one medical imaging company, Multiwave Technologies (Dr. Antonakakis). These three organizations are located in Marseille, France. The general purpose of this Chair is to develop a new generation of innovative portable MRI scanners operating at ultra-low field and to pay a more particular attention to neurology and MSK applications. The main scientific objectives of the project cover hardware technologies, as well as MR data acquisition and reconstruction strategies. Clinical research activities will also be covered in the frame of this program.

As part of this industrial Chair WP2 (“Recherche et Développement IRM”), Multiwave Technologies is offering 3 post-doctoral or expert (for engineer/master) positions and 3 doctoral positions in the frame of permanent contracts (CDI-Contrat à Durée Indéterminée), in partnership with the CRMBM laboratory and Fresnel Institute.

Benefits for recruited researchers include:

- Enrolment in a program between two entities, a public research laboratory and a private company
- Work on an innovative project of high commercial and societal value
- Be employed in France under a full-time permanent contract (CDI)
- Form part of a rich multidisciplinary network of researchers and supervisors
- Work closely with industry leaders

M4A is co-funded by A*MIDEX and Multiwave Technologies grant agreement no. AMX-2023-CI-01.

2. M4A Recruitment Campaigns

2.1 Key dates

Recruitment of M4A candidates will be conducted, at least, over two call rounds. Should not all places be filled in the first two calls, a third round or more might be conducted. The second call for applicants should be launched later on in 2024 or in 2025.

Steps	What will happen at this step?	Timeframe
1 – Application by mail	Send your complete application by mail to jonathan@multiwave.fr before 24 May 2024 at 23:59 PM CET.	Between 21 March 2024 and 24 May 2024
2 - Eligibility check	M4A Team will check that your application complies with the requirements and meets the eligibility criteria.	Until 28 May 2024
3 - Evaluation of eligible applications and first ranking	Applications that are considered eligible will be assessed by the Selection Panel against the Evaluation Criteria detailed in section 4 of this guide.	Between 29 May 2024 and 5 June 2024
4 - Interviews	Applicants shortlisted by the Selection Panel will be invited for an interview (by videoconference). Applicants will be contacted at least 5 days before the date of the interview.	Notification to short-listed Applicants: 5-7 June 2024 Interviews: 10 June 2024 to 21 June 2024
5 - Final ranking and allocation of positions	If you are the preferred candidate for the position, you will receive a conditional offer letter for admission into the M4A Program.	End of June 2024
6 - Onboarding of successful Applicants	You will formalize your employment with Multiwave Technologies.	As soon as possible

Table 1: Timeline for M4A first call for applicants.

2.2 Open positions and projects

All open positions are published on Multiwave Technologies website: [Careers | Multiwave](#). For this first call, 2 post-doctoral (or expert) positions and 1 doctoral position are proposed. Applicants must choose their preferred project among the 3, but this does not preclude that the selection panel could not propose one of the other projects to the applicant according to his/her profile and experience.

2.3 Who can apply?

M4A is open to excellent students, engineers/experts and researchers of any age, nationality and gender, early in their career. Applicants must fulfil the following minimum eligibility criteria:

For doctoral applicants:

- Applicants must have not yet been awarded a doctoral degree. Researchers who have successfully defended their doctoral thesis but who have not yet formally been awarded the doctoral degree will NOT be considered eligible to apply.
- Applicants must meet the academic criteria for admission to the doctoral program at the Aix-Marseille University.

For post-doctoral applicants:

- Applicants must have been awarded a doctoral degree. Researchers who have successfully defended their doctoral thesis but who have not yet formally been awarded the doctoral may be considered eligible to apply.

For expert applicants:

- Applicants must have a professional experience in MRI instrumentation or MRI applications.

2.4 Restrictive measures

M4A is a collaborative program and must comply with European, national and local legislations. In this regard, M4A partners may have restrictive measures in place following the United Nations Security Council (UNSC) sanctions regimes¹ and the French regulation on *Protection du potentiel scientifique et technique et intelligence économique*². Applicants who are nationals or residents of countries, against which restrictive measures are in place, may be subject to additional security checks. The selected candidates' contracts will be validated only once the "Zone à Régime Restrictif" (ZRR) authorization is obtained. This authorization grants physical and virtual access to the project resources.

2.5 Equal opportunity

M4A adheres to the principles of the European Commission's Strategy on Equal Opportunities for Women and Men and promotes genuine equal access opportunities between all applicants throughout the recruitment process. M4A is fully committed to eliminating discrimination and actively promoting equality of opportunity for staff and students. Researchers at risk³, from different genders, backgrounds and origin are encouraged to apply.

3. How to apply

All Applicants must follow the same application process to ensure that the selection is consistent and fair: only applications that are complete, in English or French, and submitted through an email to jonathan@multiwave.fr before the deadline will be considered eligible. Incomplete applications and documents received by other means (for instance postal mail) will be discarded.

3.1 Before applying

- Confirm that you meet all eligibility criteria.
- Go through the positions advertised on [Careers | Multiwave](#) and make your choice.
- Once you have chosen a position, prepare all the supporting documents requested.

3.2 Your application

The application form must be sent by mail before 24 May 2024 at 23:59 PM CET, **in English or French**, to jonathan@multiwave.fr.

A complete application is made of the supporting documents listed in the table below (table 2).

Supporting documents and eligibility

1. Scanned copy of a valid photo identification document (national ID, passport or equivalent)
Important: A picture of yourself is not acceptable; a valid photo ID must be a national identification document, passport or equivalent that includes your photo, full legal name, date of birth, nationality and other personal information.
2. CV (Curriculum Vitae/ Resume)
Your CV should clearly indicate your education, work and research experiences. A list of publications, patents, prizes, or any other achievements must be added.

¹ UN Security Council webpage on sanctions: <https://www.un.org/securitycouncil/sanctions/information>

² French Ministry of Higher Education and Research website: <https://www.enseignementsup-recherche.gouv.fr/fr/protection-du-potentiel-scientifique-et-technique-et-intelligence-economique-ppst-46370>

³ Researchers at risk include researchers, scholars and scientists at all stages of their careers who are experiencing threats to their life, liberty or research career, and those who are forced to flee or have been displaced because of such threats.

3. Research skills and/or work experience paper

For doctoral applicants:

- Prepare a 2 pages document to explain more in details: your background, master thesis, internships, and relevant skills. Add any relevant competences, international or industry internships, participation into conferences, communication activities, etc. Important: explain how you see your involvement in the M4A project, what would be your own main technical contributions and what would be your expectations in terms of training from this Low Field MRI program.

For post-doctoral applicants:

- Describe in 3 pages maximum your background, thesis topic and results, internships, and relevant skills. Add any relevant competences, international or industry internships, participation into conferences, communication activities, etc. Important: explain how you see your involvement in the M4A project and what would be your own main technical contributions to this Low Field MRI program.

For expert applicants:

- Describe in 3 pages maximum your 3-4 years' experience in the MRI domain and main achievements. Important: explain how you see your involvement in the M4A project and what would be your own main technical contributions to this Low Field MRI program.

4. Motivation letter

Describe your scientific interests and why you are interested in the specific position you are applying for.

Important:

- Describe why you are a good fit for the position
- Explain what you would like to achieve with this project

Summarize relevant skills, experience knowledge and personal behaviors you have that fit the role.

5. Scanned copy of your official academic transcripts (and their translation)

Your transcripts must show the grades attained in exam periods with the dates corresponding to the degrees completed (both Bachelor's and Master's – or equivalent). You should explain the scoring system (minimum and maximum grade), indicating the threshold for passing.

Academic records not written in English should be accompanied by a translation into English or French (either an official translation or self-translation).

If you have not yet been awarded your Master's (for PhD position application) or Doctoral degree (for post-doctoral application), you may upload a provisional degree or document from your institution.

6. Name, phone contact and email address of at least 1 referent

Referents must be university lecturers or scientists who are familiar with your academic work and can judge your potential as a doctoral or post-doctoral researcher.

Table 2: List of supporting documents requested for all applications.

All documents must be in English or French, or accompanied by an English or French translation. We recommend you to submit your documents in non-editable format (PDF preferred).

Applicants who have minor issues with their applications (scans not fully legible, residency status unclear) or where further information is needed to evaluate eligibility, will be contacted by M4A team and asked to provide further documentation within 3 working days.

4. Assessment and selection

M4A is committed to Open, Transparent and Merit-based Recruitment. At each stage, Applicants will be informed of the outcome by email.

4.1 Evaluation of the applications submitted

Applications successfully passing the eligibility check will be assessed by a dedicated Selection Panel against the Evaluation Criteria detailed in Table 3. A first ranking will be produced based on average scores granted by the Selection Panel. Up to 3 Applicants per position will be shortlisted for an interview.

Criteria	Score	Weighting (%)
Academic merit: academic transcript, publications, etc.	0–5	30
Research skills and/or work experience paper	0–5	30
Motivation letter	0–5	30
Recommendation by referees	0–5	10
Weighted Average	0–5	100
Scoring guide:		
0 – Fail. The application fails in these criteria or cannot be judged due to incomplete information.		
1 – Poor. The application has serious weaknesses or is addressed in an inadequate manner.		
2 – Fair. The application broadly addresses the criterion, but there are significant weaknesses.		
3 – Good. The application addresses the criterion well, although improvements are required.		
4 – Very Good. The application addresses the criterion very well, although certain improvements are still possible.		
5 – Excellent. The application successfully addresses all relevant aspects of the criterion in question.		

Table 3: Criteria and weighting for scoring applications to M4A positions.

4.2 Interview

Interviews of the shortlisted Applicants will be conducted by videoconferencing between 10 June 2024 and 21 June 2024. Applicants shortlisted will be informed at least 3 days before the interview.

Interviews will be conducted by the members of the Selection Panel who performed the first evaluation. They will assess each Applicant against the Evaluation Criteria detailed in Table 4.

The interviews will be composed of:

- A 10-min presentation by the Applicant (background and research project). The presentation can be supported by visuals (e.g. PowerPoint – 5 slides maximum).
- A 30-min question-and-answer session.
- 5-min for the Applicant's questions to the Selection Panel.

Criteria	Score	Weighting (%)
Scientific/technical and investigative aptitude and motivation	0–5	30
Research Project: conceptual understanding and suitability	0–5	30
Professional skills: planning, problem solving, IT, data management	0–5	20
Interpersonal skills: communication, teamwork, initiative, English level	0–5	20
Weighted Average	0–5	100

Table 4: Criteria and weighting for scoring interviews.

A final ranking for each position will be calculated by combining the interview score (60% weighting) and the first ranking score (40% weighting).

The final selected candidates may have a second interview with Multiwave Technologies President and/or CEO.

4.3 Successful Applicants

Successful Applicants will receive a conditional offer letter for admission into the M4A Industrial Chair program. They will be offered a full-time employment contract by Multiwave Technologies company, in line with the conditions detailed in the position description. A position will be considered filled once the successful Applicant has signed his/her employment contract.

Note that at admissions phase, successful Applicants must be able to provide the originals of all academic documents issued by their home institution(s), or relevant body, duly legalized by apostille, or in their default, legalized by diplomatic means, and along with the corresponding official translation to English or French (if required).