

# PRODUCT R&D ENGINEER

LOCATION	28 rue de Turbigo, 75003 Paris, France
CONTACT	<a href="mailto:job.application@damaemedical.fr">job.application@damaemedical.fr</a>
TYPE OF CONTRACT	Full time
STARTING DATE	As soon as possible

## About DAMAE Medical

During a routine clinical examination, the dermatologist performs a systematic biopsy of any suspicious skin abnormality on the patient. He then sends this sample to an anatomopathology laboratory where a diagnosis will be made using a histological examination. This process lasts about fifteen days, after which the dermatologist removes the entire cancer anomaly or sets up the appropriate treatment.

According to the World Health Organization, approximately 140,000 cases of skin melanoma are reported each year worldwide. Its incidence has been steadily increasing by 10% per year for the past 50 years. The 5-year survival rate is 88% for localized melanomas, while it is only 18% in advanced metastatic situations. Early detection of skin melanoma is therefore of vital importance. One third of melanomas are undiagnosed because they are invisible to the naked eye.

DAMAE Medical is a company founded in September 2014 promoting the innovative optical technology LC-OCT (Line-field Confocal Optical Coherence Tomography). DAMAE Medical develops medical imaging devices that provide dermatologists with real-time images of similar quality to traditional histological images without the need for preparation or sampling.

The visualization of the suspect tissue is done directly at the cellular level, over a penetration depth up to the dermis. Examinations are more effective because the practitioner can detect melanoma before the first signs of the disease have even appeared on the surface. Biopsy is only performed if necessary, and the patient saves pain and scars that are often unnecessary. In the long term, this solution will increase the reliability, speed and reduce the costs of diagnosing skin anomalies in dermatological practices.

## Job presentation

You will join the company's R&D team and become a key element in the development and industrialization of our medical devices. Your missions will consist in:

- **Participating in engineering studies:** design and/or improvement of optical or mechanical functions, prototyping of electronic boards. Document / update the design file (nomenclature, drawing...) and send it to subcontractors for manufacturing. Assembly and integration into the device, experimental tests and validation.
- **Taking charge of the verification and validation phases of product design:**
  - Definition of the qualification strategy (performance metrics, functional tests, calibration, robustness...).
  - Creation of associated test plans, execution of tests and reports.
  - Management and correction of bugs and NCs, tracking of traceability.
  - Development of associated tools (test benches, software, automation).
  - Valuation of qualification results to define monitoring and maintenance strategies for the devices.
- **Contributing to instrumentation & experimentation activities:** assembly or technical adaptation of prototypes or pre-series, optical alignments and adjustments, performance qualification, internal and external demonstrations, installation of equipment at partners' premises, follow-up of preclinical and clinical studies and technical support if necessary.

## Required profile

This position is intended for a physicist engineer with a good theoretical and practical knowledge of optics, and a strong interest in instrumental development. You have skills in design and programming tools and software (Zemax, ImageJ, SolidWorks, Matlab, Labview...). A sensitivity to the industrial development of medical imaging systems will be a plus.

Passionate about high-tech science and engineering, you demonstrate great energy, with a strong results-oriented culture and a high level of responsiveness. Autonomous, versatile, you are aware of the Health sector and curious to discover cutting-edge innovation in the Medical Devices industry as a solution to improve patients' lives. Working in an international environment, a good level of English is essential for this position.

Are you looking to invest yourself fully in a fast-growing startup where you can apply your creativity, expertise and taste for challenge? We invite you to join a team of professionals passionate about innovation and new technologies, in a young and motivating atmosphere. Your understanding of the issues and the quality of your technical skills will provide the company with valuable resources to achieve its ambitions.