

A.D.A.M SA seeks to appoint an

## Accelerator Physicist

A.D.A.M. SA (Applications of Detector and Accelerators to Medicine) is working on the R&D and production of accelerators for medical applications. It is a research company, inspired by CERN and a subsidiary of Advanced Oncotherapy plc. A.D.A.M SA is head-quartered in Meyrin/Switzerland and its laboratories are based at CERN. A.D.A.M SA is involved in a hadron cancer-therapy project to build the linear proton accelerator LIGHT (Linac for Image Guided Hadron Therapy). LIGHT's proton energies range from 70 MeV to 230 MeV and its beam properties are ideally suited for the effective treatment of cancerous tumors. More information on A.D.A.M. SA can be found on [www.adam-geneva.com](http://www.adam-geneva.com) and [www.avopl.com](http://www.avopl.com).

The A.D.A.M. SA Physics Group is seeking a talented Accelerator Physicist with experience in beam dynamics simulations and machine optimization to work closely with the physics group team in the definition of lattice specifications, beam error studies and machine integration studies. The position requires a good understanding of beam properties and interaction with other stakeholder to find solutions adapted to different machine configurations.

### Main activities:

- ) Perform conceptual and technical design of beam transfer system for new projects and feasibility studies
- ) Perform beam dynamics simulations studies on proton linac and transfer lines (including error studies, simulation and optimization of beam losses) for different machine configurations
- ) Support operation during beam commissioning of LIGHT-prototype
- ) Writing technical report and technical documentation

### Requirements:

- ) Master's degree/ PhD in Physics or equivalent
- ) Experience in particle tracking, optics modelling, beam dynamics simulations and analysis with single and multi-particle simulation codes (like MAD-X, MAD-X PTC, Trace3D, Travel...)
- ) Good level of spoken and written English with the ability to draw up technical text
- ) Willingness to travel

### Following additional skills and experience are advantageous:

- ) Previous experience in machine optimization and data analysis
- ) Use of programming language (Python, Matlab, Octave...)
- ) Previous experience in accelerator operations
- ) Experience with normal-conducting magnet design and measurements
- ) Experience with simulations software for radiation calculation and analysis

### Information

For further information please contact [a.degiovanni@avo-adam.com](mailto:a.degiovanni@avo-adam.com)

### What we offer

- ) a competitive salary and contribution to healthcare costs
- ) 24 days holiday plus the CERN closing days (approx. 6 days per year)
- ) a friendly, international working environment with experts in their field
- ) career progression through training, development and attendance at conferences
- ) the chance to be at the cutting-edge of proton therapy research

### Applications

Interested candidates should submit

- ) a cover letter
- ) a curriculum vitae
- ) a master degree certificate or equivalent in a relevant field
- ) at a minimum, the names of 2 referees, or two letters of recommendation (and/or employment certificates)

by email to the HR Director: [sabrina.lagrimosa@avo-adam.com](mailto:sabrina.lagrimosa@avo-adam.com).

For full consideration, applications should be submitted by May 18<sup>th</sup> 2018.

The positions will remain open until filled and all qualified individuals are encouraged to apply.