

### PROFESSIONAL PROFILES

ID	NATIONAL FACILITY	QUALIFICATION AND GENERAL REQUIREMENTS	PROFESSIONAL EXPERTISE
1	Genomics	<p>PhD and more than 5 years of experience in the field of genetics, genomics, statistics applied to genomics studies, computational genomics and germline population genomics.</p> <p>Proven experience in a) leading research teams on large-scale international projects in the above-mentioned fields; b) use and/or management of high-tech research infrastructures; c) obtaining research funding on a competitive basis in international contexts (e.g., ERC, EMBO, Wellcome, CRUK etc.).</p> <p>Participation in grant review panels for the award of research funding at international level (e.g., ERC, EMBO, Wellcome, CRUK etc.) or participation - past or current - in the activities of the European Strategy Forum on Research Infrastructures (ESFRI) or other high-tech research infrastructures.</p>	<p>a) Application of advanced genomic technologies (e.g., scRNA-seq, short- and long-read and other advanced sequencing-based technologies) and cell-based assays to decipher the function of the human genome.</p> <p>Or</p> <p>(b) development of sequencing- and/or imaging-based technologies for analysing the non-coding genome and human phenotypes.</p> <p>Or</p> <p>(c) conducting transcriptomics, large-scale and single-cell functional genomics and/or large-scale functional screening programmes or, alternatively, developing genomics/multiomics technologies.</p>
2	Genome Engineering	<p>PhD and more than 5 (five) years of experience in the field of genome engineering and/or in the management of Core Facilities providing genome engineering and CRISPR screening services.</p> <p>Proven experience in a) leading research teams on large-scale international projects in the above mentioned fields; b) use and/or</p>	<p>(a) CRISPR/cas9 (including Basic and/or Prime Editing) with applications on (a) embryonic stem cells (ESCs) or induced Pluripotent Stem Cells (iPSCs) and/or (b) immortalised or tumour cell lines.</p> <p>(b) Generation and cryopreservation of stem cell cultures and generation of three-dimensional cell cultures (organoids).</p>

		<p>management of high-tech research infrastructures; c) obtaining research funding on a competitive basis in international contexts (e.g. ERC, EMBO, Wellcome, CRUK etc.).</p> <p>Participation in grant review panels for the award of research funding at international level (e.g., ERC, EMBO, Wellcome, CRUK etc.) or participation - past or current - in the activities of the European Strategy Forum on Research Infrastructures (ESFRI) or other high-tech research infrastructures.</p>	<p>c) Management of Core Facilities providing genome engineering and CRISPR screening services (applied to both cancer cell lines and stem cells).</p> <p>(d) Screening approaches based on the CRISPR-Cas9 method.</p>
3	Structural Biology	<p>PhD and more than 5 (five) years of experience in the field of structural biology, cryoelectron microscopy, biomass production and/or biophysics.</p> <p>Proven experience in a) leading research teams on large-scale international projects in the above-mentioned fields; b) use and/or management of high-tech research infrastructures; c) obtaining research funding on a competitive basis in international contexts (e.g., ERC, EMBO, Wellcome, CRUK etc.).</p> <p>Participation in grant review panels for the award of research funding at international level (e.g., ERC, EMBO, Wellcome, CRUK etc.) or participation - past or current - in the activities of the European Strategy Forum on Research Infrastructures (ESFRI) or other high-tech research infrastructures.</p>	<p>a) Management of centralised, multi-user structural biology facilities or access programmes to centralised facilities.</p> <p>b) Electron microscopy, biophysics and best practices in biomass production.</p>
4	Light Microscopy	<p>PhD and more than 5 (five) years of experience in either biological or biomedical science and technology related to the use and development of light microscopy methods.</p>	<p>a) Fluorescence and confocal microscopy</p> <p>b) Super-resolution microscopy</p>

		<p>Proven experience in a) leading research teams on large-scale international projects in the above-mentioned fields; b) use and/or management of high-tech research infrastructures; c) obtaining research funding on a competitive basis in international contexts (e.g., ERC, EMBO, Wellcome, CRUK etc.).</p> <p>Participation in grant review panels for the award of research funding at international level (e.g., ERC, EMBO, Wellcome, CRUK etc.) or participation - past or current - in the activities of the European Strategy Forum on Research Infrastructures (ESFRI) or other high-tech research infrastructures.</p>	<p>c) Correlative Light Electron Microscopy</p> <p>d) Non-linear microscopy</p> <p>e) Light sheet microscopy</p> <p>f) Live-cell imaging</p> <p>g) Sample preparation (fluorescent marking, clearing protocols, expansion microscopy protocols)</p> <p>h) Light microscopy image analysis</p>
5	Data Handling and Analysis	<p>PhD and more than 5 (five) years of experience in the field of data analysis (imaging or omics) applied to life science.</p> <p>Proven experience in a) leading research teams on large-scale international projects in the above-mentioned fields; b) use and/or management of high-tech research infrastructures; c) obtaining research funding on a competitive basis in international contexts (e.g., ERC, EMBO, Wellcome, CRUK etc.).</p> <p>Participation in grant review panels for the award of research funding at international level (e.g., ERC, EMBO, Wellcome Trust, CRUK etc.) or participation - past or current - in the activities of the European Strategy Forum on Research Infrastructures (ESFRI) or other high-tech research infrastructures.</p>	<p>a) Bioimage data analysis (light and electron microscopy images).</p> <p>b) Modern machine learning and deep learning approaches and their application to image data analysis for the life sciences (in the context of light and electron microscopy).</p> <p>c) Management/analysis of large quantities of scientific image data (archiving and calculation).</p> <p>(d) Statistics applied to genomics and computational genomics studies.</p> <p>(e) Bioinformatics applied to genomics and computational genomics studies.</p> <p>(f) Creation and analysis of genomic datasets.</p>