

Talking Points for Faculty Recruiting
Skolkovo Institute of Science and Technology

Main Points

Need: A need for faculty all levels with a strong entrepreneurial spirit to create research programs in priority areas and to educate strong scientists and engineers who are thoughtful global innovators, and to build an institution designed to be an engine of economic growth

Opportunity: Exciting opportunity to build a brand new university, and new type of university, that integrates research, innovation and education, and focuses on the themes of IT, Energy, Biomed, Space and Nuclear, as well as crosscutting areas of computationally intensive science, materials and manufacturing.

MIT: Founded on a very close collaboration with MIT, which is influencing Skoltech's culture, programs and plans.

Students: Able to attract top graduate students and post docs from Russia and abroad who have strong scientific backgrounds, as well as inter-personal and innovation skills, all of whom will be young researchers and innovators

Colleagues: A far-reaching vision that attracts an international team which brings together scholars with strong experiences and reputation in education, research, and innovation, who work with no internal borders

Research Centers: 15 Centers for Research, Education and Innovation (CREI) supported by a permeable grouping of scholars that will grow to about 100 professionals and will integrate research, education and innovation. Also a Center for Innovation and Entrepreneurship which supports innovation, and a Center for Advanced Studies which houses fundamental mathematics and science.

Ecosystem: Skoltech is an indispensable part of the Skolkovo ecosystem that comprises a complete high-tech city with a number of private international R&D centers and start-up incubators

Labs: Best in class equipment, infrastructure and laboratories in the new campus of 133,000 square meters

Financial Support: very generous start up packages and sustained research funding through the Skoltech budget, plus the opportunity to compete for external funding

Positions Available: Full and part time positions at the rank of full, associate and assistant professors, Professors of the Practice, and various other appointments for those unable to relocate to Moscow.

About Skoltech

Skoltech is a *private graduate university* on the outskirts of Moscow, and a new model for an international university of the 21st century *bridging science and innovation* to have an impact on the world we live in. We integrate education, research and innovation to produce new ideas, technologies and talent. We bring together a fusion of exceptional Russian and international scholars, key partnerships and a world class infrastructure to found in Skoltech an institute capable of becoming a major engine of economic growth.

Skoltech plans to be a community of 200 professors, 440 post docs, 1200 Masters and Doctoral students by the end of the decade.

Skoltech is led by a distinguished group of founders and leaders, with rich experience in university and innovation projects:

- President Ed Crawley (32 years at MIT, member of four national academies of engineering, and the creator of the CDIO approach to engineering education)
- Provost Raj Rajagopalan (U Florida, the NSF, founder of departments in NUS and key advisor in founding KAUST).
- An independent Board of Trustees contains university and science leaders, businessmen and entrepreneurs and representatives of government.

Skoltech Community and Partnerships

The design of Skoltech is created to accelerate science and innovation, and vigorously support the career of its faculty

- A world class cadre of senior faculty including Anton Berns, former Director of the Dutch National Cancer Institute and Victor Kotelianski, the former CSO of Alnylam Pharmaceuticals
- A group of exceptional talented younger faculty, including graduates and post docs from MIT, Cambridge, Stanford and Oxford
- Research organized into 15 Centers for Research, Education and Innovation (CREI), involving a permeable grouping of about 10 faculty scholars and supported by a team of post docs, visitors, PhD and Masters students, as well as professional staff that will grow to an average of about 100 for each CREI – see research priorities below.
- Each CREI will integrate and contribute to research and innovation, as well as graduate education. The CREIs are designed also to create entrepreneurial startups, spinning off the new technologies developed within each project. This aspect of the research centers enables Skoltech to act as a bridge between science and the economy.
- Skoltech also runs a Center for Entrepreneurship and Innovation, which conducts educational and research programs on innovation, as well as supporting its practice at Skoltech.
- Access to both the Russian and international academic communities
- A strong partnership with MIT that covers research, education, innovation, and faculty recruiting and development. This represents the

most advanced model of international collaboration developed by MIT to date. See the video: [Skoltech : Founding a university for the 21st century](#)

- Strong connections with Russian and international industry

Career Opportunities at Skoltech

- A tenure and promotion system modeled on US practice, with international peer review – see summary of appointments below.
- A generous start up package from Skoltech, designed to cover about 50% of research costs for the first four years
- The other 50% of research funding given directly by Skoltech through the CREIs for the foreseeable future
- Appropriate laboratory and research space in a brand new 133,000 square meter campus, to be equipped with the latest laboratory equipment, with the ability to influence the design
- Participate as a founder of a new university
- Working with academically very strong Russian students, who have self selected to be in an international environment with an orientation to innovation.
- Help to create and teach an English-based educational program founded on best practice and modern understanding of learning and referenced to the Bologna system.
- Work as a portal of exchange between Russia and other nations
- For young scholars, spend a year in a faculty development program at a MIT or another partner institution
- The design of the 15 CREIs and absence of departments allows interdisciplinary research and innovation projects of interest to you and colleagues
- Work to commercialize your science and technology, and perhaps start a prosperous company
- Work in the environment of the Skolkovo innovation ecosystem
- Skoltech is a collaboration of international scholars who work together in an apolitical environment, building relationships and trust among people

Living and working in Moscow

- Moscow is a “world city” of 15 M people and runs 24/7
- Many of our colleagues live downtown and take the reverse commute to Skoltech, others live nearby
- There are strong Russian and international schools in the city
- Moscow is a “reasonably crime-free city”

What to do next

- Encourage them to learn more by visiting the web site: faculty.skoltech.ru
- Send an email to faculty.interest@skoltech.ru - ideally you would include their CV, but if you do not have a copy at hand, send the note anyway without the CV

Priority areas for research:

- Biomedicine:
 - Computational and systems biology
 - Immunology and infectious disease
 - Gene- and nano-medicine
 - Stem cells and regenerative medicine
- Energy:
 - Hydrocarbon fuel production
 - Hydrocarbon processing
 - Electrical power systems generation and distribution
 - Electrical energy storage
- IT:
 - Machine learning and AI
 - Advanced computing systems
 - Big Data
 - Electronics materials and device
 - Quantum physics/technology
- Space:
 - Supporting humans in long-term space exploration
 - Space systems and sensors
 - Utilization of space data
- Nuclear:
 - Materials for extreme environments
 - Non-energy applications
- Materials and Manufacturing:
 - Advanced materials
 - Advanced manufacturing and operations
- Cross-cutting
 - Computational and data-intensive science & engineering
 - Research in innovation and entrepreneurship

Types of appointments:

Skoltech has a variety of faculty appointments:

- Professors, Associate Professors and Assistant Professors who have tenure track positions and normally are in full time residence in Moscow.
- Professors and Associate Professors of the Practice are distinguished practitioners from industry, who hold term appointments and normally spend at least 50% of their time on the campus.
- Adjunct Professors, Associate and Assistant Professors, who hold term appointments, and are generally not a full time resident on the campus.
- Affiliate Professors and Associate Professors are honorary faculty positions created for engaging highly active faculty from CREI Partners who contribute to Skoltech in research, education and/or innovation.
- Visiting Professors and Associate Professors are tenure-track faculty members elsewhere who spend at least one month at Skoltech.
- Research Professor, Associate and Assistant Professors are term appointments that recognize research accomplishments and have research and innovation activities as their principal responsibility.