



# Research at the NYU Abu Dhabi Institute

## Vision, Goals and Organization<sup>1</sup>

### I. The Vision for Research at NYU Abu Dhabi Institute

The NYU Abu Dhabi Institute will be a world-class center of cutting-edge and innovative research, scholarship and cultural activity. Situated at a strategic hemispheric crossroads in a rapidly evolving city, the Institute will offer outstanding facilities, research funding at a significant level and with exceptional continuity of support, and a vigorous, cohesive and interactive intellectual environment. The Institute will create singular opportunities for leading faculty members from across the arts, humanities, social sciences, sciences, engineering, and the professions to carry out creative scholarship and conduct research on issues of major disciplinary, multidisciplinary, and global significance. Reinforcing its primary research mission, the Institute will also host academic conferences, workshops, lectures, film series, performances, and other public programs directed both to local audiences and to the worldwide academic and research community.<sup>2</sup>

The Institute is a key component of NYU's new NYU Abu Dhabi campus, together with a highly selective liberal arts and science college and distinctive graduate programs.<sup>3</sup> Research will be

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<sup>1</sup> This document was prepared under the guidance of David W. McLaughlin, Provost, New York University, and reflects the substantial input provided by the six faculty groups that were convened to coordinate efforts to recruit NYU in New York faculty and standing faculty to teach at NYU Abu Dhabi and to organize the specifics of the disciplinary and core curricula in the designated areas for each group: in Humanities (Dean Matthew Santirocco, Chair), Social Science (Dean Dalton Conley, Chair), Science and Mathematics (Dean Dan Stein, Chair), Arts (Dean Edward Sullivan, Chair), Engineering (Senior Vice Provost Dianne Rekow, Chair) and Economics/Finance (Dean Sally Blount-Lyon, Chair). In particular, the document reflects the creative suggestions and recommendations submitted by David Heeger, Professor of Psychology and Neural Science, Faculty of Arts and Science, on behalf of the science and mathematics group. The document incorporates the numerous strategy discussions of NYU and NYU Abu Dhabi senior leadership, including Al Bloom, Vice Chancellor, NYUAD; Mariet Westerman, Provost, NYUAD; Hilary Ballon, Deputy Vice Chancellor, NYUAD; Ron Robin, Acting Senior Vice Provost for Planning; and Pierre Hohenberg, Senior Vice Provost for Research. Jess Benhabib, formerly Senior Vice Provost for Planning, shaped this effort from its inception. Carol Morrow, Associate Vice Provost for Academic Operations Planning, played an essential role in developing and preparing these materials. The support of the Executive Affairs Authority of Abu Dhabi, particularly, Bethany Jones and David Hollowell, and the NYUAD Financial Advisory Committee, is gratefully acknowledged.

<sup>2</sup> For more detailed information about the NYU Abu Dhabi Institute, see <http://nyuad.nyu.edu/institute/index.html>

<sup>3</sup> For more information about academic programs at NYU Abu Dhabi see <http://nyuad.nyu.edu/academic.programs/>

integral to the undergraduate experience at NYU Abu Dhabi and will drive the graduate program. Many researchers at the Institute will teach at NYU Abu Dhabi and belong to its faculty.<sup>4</sup> Graduate students will do their thesis work in the Institute, and undergraduates will participate in supervised research apprenticeships. The opportunity for NYU Abu Dhabi students to engage with world-class faculty active in intellectual and creative research will bring the passion and substance of ambitious and significant research into the NYU Abu Dhabi undergraduate experience, and infuse that experience with the culture of idea creation of a great research university. Further, the participation of leading faculty from NYU in the activities of NYU Abu Dhabi will deliver the full research university NYU, with its rich range of scientific, scholarly, creative, and professional programs, to NYU Abu Dhabi and enhancing the role of NYU as a Global Network University.

The research environment will be further enhanced by partnerships with international colleagues, collaborations with academic institutions in the United Arab Emirates and throughout the region, entrepreneurship and cooperative ventures with local research and industry, and a robust schedule of visiting scholars from all over the world in Institute conferences, workshops, and other public and invitational programs. By supporting research on critical problems in and across disciplines, and attracting an international cohort of scholars, scientists, and creative leaders, the NYU Abu Dhabi Institute is poised to build a truly innovative research capacity in Abu Dhabi and catalyze the development of Abu Dhabi as a capital of ideas, research, and education.

The Institute will be organized initially to launch disciplinary and multi-disciplinary initiatives in NYU Abu Dhabi that advance knowledge in sustained and innovative ways, extend and diversify the research and creative missions of NYU and its global network, and generate and sustain the organic connection and vigorous flow of information, ideas and people between NYU in New York and NYU Abu Dhabi. While some projects may launch research in areas essentially new to NYU, many will be conceived as projects that enhance, complement, or extend NYU in New York research programs. To promote NYU Abu Dhabi's full integration within NYU and foster a flow of information and interaction of faculty between NYU Abu Dhabi and NYU in New York, there will be a second site for Institute activity in New York at 19 Washington Square North. Scheduled to open in Fall 2009, this house will serve as the gateway to NYU Abu Dhabi for NYU faculty, students, and the wider public, host a variety of academic programs – many in direct relation to the work of the NYU Abu Dhabi Institute – and offer global connectivity for videoconferencing and teaching.<sup>5</sup>

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<sup>4</sup> This document describes research opportunities at NYU Abu Dhabi Institute. In addition to these major opportunities, NYU Abu Dhabi will offer significant research support on a departmental and individual basis to NYU Abu Dhabi faculty and NYU in New York faculty affiliated with NYU Abu Dhabi. Programmatic budgets within each academic unit will allow units and faculty to invite scholars, scientists, and artists from around the world for short collaborative stays, lectures, colloquia, workshops, and performances. Individual faculty budgets within each academic unit will facilitate faculty travel, acquisition of research materials, and support of research staff. Allocations of such research budgets will be made on an annual basis.

<sup>5</sup> For more information about 19 Washington Square North, see <http://nyuad.nyu.edu/about/locations/19wsn.html>

## **II. Organization and Support of Research**

Our goal is for the Institute to be a premier center of research, with outstanding facilities, full and sustained funding for research, strong interaction with local institutions, and a robust international intellectual environment. The research conducted at the Institute will be highly visible with the potential for high impact within the region and internationally, such that NYU Abu Dhabi will receive world-wide recognition as a model of excellence and as a source of ground-breaking theoretical ideas, creativity, and empirical results. The Institute will be completely integrated into NYU Abu Dhabi, as well as NYU and the Global Network University.

### **Research Programs at NYU Abu Dhabi**

The Institute will have a divisional structure, divided initially into three areas: Science and Engineering, Humanities and the Arts, and Social Sciences and the Professions. In each of its major areas of academic inquiry the Institute will provide substantial and sustained funding for research.<sup>6</sup> The Institute will be composed primarily of teams of researchers conducting long-term research programs and led by a Principal Investigator and/or co-Principal Investigators. However, the structure will be flexible enough to support individual scholars (as, for example, is natural in the humanities), projects of short duration, creative/performance projects in the arts, and large-scale laboratory-based research teams. A distinctive organizational feature of the Institute that will give a sharp profile to research at NYU Abu Dhabi is the “Signature Initiative.” These substantial endeavors will focus on “grand challenges” of singular complexity and critical significance that require robust collaboration within and across disciplines.

Thus, the Institute will offer substantial and sustained funding to support the advancement of creativity and knowledge by NYU faculty in a variety of ways that meet the needs of the disciplines and the investigators. The nature and type of support, the duration of funding cycles, and the mix of the research, creative, and technical projects will vary by field and even within a field, depending upon the objective and style of research. Especially in these early years, faculty proposals for research activities and the structure and scale of support for them will be developed through an iterative consultative process. Faculty investigators will be encouraged to think ambitiously and creatively about the research support they need, and to develop their ideas in discussion with their department chairs, deans, and the NYU and NYU Abu Dhabi leadership.

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<sup>6</sup> The level of support and its continuity might be compared with that available in the medical and life sciences to Howard Hughes Medical Institute Investigators, and in the humanities and arts to recipients of the most competitive multi-year grants from the National Endowment for the Humanities or the National Endowment for the Arts.

Funding is available to support:

1. *Fellowships* for individual scholars, in all disciplines but typically in the humanities.
2. *Creative/Performance Projects*, primarily in the arts;
3. *Experimental Laboratories* in the sciences and engineering (analogous to ‘centers’ in the experimental sciences);
4. *Scholarly Groups and Research Centers* in the social sciences, professions, humanities and arts, as well as the theoretical and computational sciences;
5. *Signature Initiatives* in all disciplines and across the disciplines, which will investigate major research themes, problems, and challenges of our day by bringing together several research groups and/or labs.

In addition, funding will be available for *Shared Research Support Facilities*, principally for experimental laboratories and Signature Initiatives, as needed.

## **Eligibility to Obtain Research Support**

Eligibility to obtain research funding as a Principal Investigator varies depending on the research activity, as noted below.

- For Experimental Laboratories, Scholarly Groups and Research Centers, and Signature Initiatives, Principal Investigators must be full-time, tenured NYU faculty (or recruits to that faculty).
- For Fellowships and Creative/Performance Projects, Principal Investigators must be full-time NYU faculty who are tenured or tenure-track, or who are Arts Professors (all ranks) in the Tisch School of the Arts, or Music Professors (all ranks) in The Steinhardt School of Culture, Education, and Human Development, or Clinical Professors in the Arts (all ranks) in The Steinhardt School of Culture, Education, and Human Development (or recruits to these faculties).

These criteria do not apply to Co-Principal Investigators and research team members. Co-Principal Investigators and research team members might or might not be NYU faculty, and might include the NYU Abu Dhabi Standing Faculty (and recruits to that faculty) whose home campus is NYU Abu Dhabi.

There are no restrictions on the number of Principal Investigators who may apply from the same department, assuming the consent of the Department Chair and Dean. Proposals from the full range of departments and schools of NYU are eligible. Joint proposals and multi-disciplinary proposals are encouraged where appropriate.

## **Continuity of Support: Term of Award**

For Fellowships and Creative/Performance Projects, support for Principal Investigators will typically be for one to three (1 to 3) years, with potentially renewable support, upon successful external peer review.

For Experimental Laboratories, Scholarly Groups and Research Centers, and Signature Initiatives, support for Principal Investigators and their research teams will typically be provided for an initial period of five years. Upon successful external peer review, support may be renewed for an additional five years. Further renewals, with funding cycles of up to seven years, may be considered after such a second term. Any renewals are conditional upon successful review and upon research results that make important, deep, and original contributions to the advancement of knowledge and thought, with significant published academic impact. At each stage, if a review is unsuccessful, the investigator will be supported for a phase-out period.

For all investigators, there is flexibility at inception and at each point in the cycle to obtain awards of shorter duration.

## **Conditions of Support**

As a condition of support, any research funded in NYU Abu Dhabi will require the frequent and regular presence of Principal Investigators at NYU Abu Dhabi. The Principal Investigators, even those based in NYU in New York, as well as all Ph.D. level research group members who are permanently based in NYU Abu Dhabi, are expected to be active members of the community on the NYU Abu Dhabi campus, contributing significantly to its intellectual life and environment -- performing research, directing their laboratories, directing students involved in the research, mentoring undergraduate research projects such as theses and independent studies, and hosting public programs and conferences related to their research.

In addition, the Vice Chancellor of NYU Abu Dhabi will at times invite Ph.D. level group members, depending on NYU Abu Dhabi curricular needs and teaching expertise, to teach up to two courses a year as members of the standing faculty of the undergraduate program. Research group members will be expected to accept these teaching opportunities and their Principal Investigators will be expected to release group members from research obligations to the extent necessary to enable them to do so. The NYU Abu Dhabi undergraduate college budget will cover these costs on a course-by-course basis.

An annual progress report describing these contributions to the intellectual vitality of the NYU Abu Dhabi Institute and campus will be required.

## **Commitment of Time at NYU Abu Dhabi**

Recipients of Fellowship awards will typically be located in Abu Dhabi for the duration of the award, as may some recipients of Creative/Performance Projects. Recipients who relocate to NYU Abu Dhabi will receive a full package of competitive benefits for themselves and their immediate families, including housing, travel allowances, and private school tuition.

Many of the Principal Investigators who head Experimental Laboratories, Scholarly Groups and Research Centers, and Signature Initiatives will typically remain in residence at NYU in New York. Their budgets will include funds for multiple trips between NYU in New York and NYU Abu Dhabi, including travel, hotel, and per diem.

NYU in New York-based Principal Investigators will be expected to commit annually at least 25% of academic year time and one summer month (or the equivalent total time) at NYU Abu Dhabi in multiple short- and long-term visits to supervise research and meet with colleagues and collaborators. Co-Principal Investigators, who might or might not be NYU faculty, will have a varying commitment of time in NYU Abu Dhabi, which can range from 10% to 100%.

## **Phasing of Research Facilities and Activities**

At maturity, the Institute will house a variety of state-of-the-art facilities, including theoretical and applied research facilities that are appropriate to the social sciences, professions, humanities and arts, and theoretical and computational sciences; equipment-based experimental labs that primarily serve the natural sciences and engineering; small-scale creative/performance projects, typically in the arts; and shared research support facilities necessary for experimental research.

Research at the NYU Abu Dhabi Institute will be in a start-up phase from through Academic Year 2014. In this period NYU Abu Dhabi will operate in interim facilities in downtown Abu Dhabi while the Saadiyat Island campus is under construction. Since the downtown campus will accommodate only limited equipment-based experimental research, projects that can start in the immediate future will be mostly restricted to individuals and groups that do not require large experimental facilities.

A full research program will begin when the Saadiyat Island campus opens, which is scheduled for Fall 2014 (previously scheduled for Fall 2013).<sup>7</sup> Although most equipment-based and facility-based research will not begin at NYU Abu Dhabi until Fall 2014, it is expected that for approved projects, planning for laboratories and facilities, and initial research activity, including team building and recruitment, will begin in New York and perhaps in interim facilities in Abu Dhabi, prior to the development of facilities at the Saadiyat Island campus.

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<sup>7</sup> For information about campus planning, see <http://nyuad.nyu.edu/about/locations/saadiyat.island.html>

## Overall Scale of Support

In this round of competition, NYU Abu Dhabi anticipates making approximately 4 to 10 awards for Fellowships and Creative/Performance Projects, 8 to 10 awards for Scholarly Groups and Centers, 4 to 6 Experimental Labs, and at least one Signature Initiative. Some projects will be housed initially in interim facilities in downtown Abu Dhabi, including some experimental research projects ramping up for accommodation at the Saadiyat Island campus. One Signature Initiative will commence at the opening of the Saadiyat Island campus or shortly thereafter.

There will be additional rounds of competition, to be announced, with funded activities sustained at commensurate levels, and with additional Fellowships, Creative/Performance Projects, Experimental Laboratories, Scholarly Groups and Research Centers, and Signature Initiatives established.

## Illustrations of Structure and Scope of Support for Research Activities

The following illustrations of the structure and scope of support for each level of activity are meant to provide examples but not to limit possibilities.

Typically, ***Fellowships*** will have support for computers, research materials and supplies, and research assistance, usually a graduate student or research assistant.

***Creative/Performance Projects*** will typically have support for creative and technical staff (including a graduate student), materials and workshops. Fellows will typically be located in NYU Abu Dhabi for the duration of the award. Awards will generally provide support for one to three years.

***Scholarly Groups and Research Centers*** and ***Experimental Laboratories*** will be dedicated to the research programs of a single Principal Investigator or a team of co-Principal Investigators. Awards will generally provide support for a renewable term of five years. The team will be led by an established Principal Investigator on the NYU faculty, often with one or two co-Principal Investigators who may be from NYU, the Abu Dhabi region or elsewhere. Principal Investigators will typically commit at least 25% of their academic year time and one summer month (or the equivalent) at NYU Abu Dhabi, perhaps in multiple visits of varying duration. Co-Principal Investigators will commit from 10% to 100% of their time to the project.

Support will be provided for a research team at NYU Abu Dhabi that could include faculty and senior researchers, a research and/or lab manager or director, graduate students, doctoral students, postdoctoral fellows, research support staff and technicians, computer technicians, lab administrators, and other necessary personnel. Budgets will also support travel to companion research groups at NYU in New York to ensure connectedness between the two sites; international conferences, workshops or mini-courses; and individual visitors or short-term or long-term visitor programs. A substantial and

generous start-up budget will be available for major equipment and instrumentation, as needed. Budget funds will be available for maintaining equipment and facilities, and purchasing research supplies and materials and other research needs. In the sciences, limited additional funds may be available, where justified, for equipment at the NYU in New York campus.

In conjunction with experimental laboratories (and experimental Signature Initiatives), ***Shared Research Support Facilities***, such as microscopy, computing, and machining, will be established at NYU Abu Dhabi as needed.

***Signature Initiatives*** may emerge from collaboration among individual scholars or Principal Investigators and their research teams and labs already in place at NYU Abu Dhabi, or may be proposed and developed as Signature Initiatives by collaborating colleagues and teams from the start. The initiatives will typically focus on research that can be most advantageously pursued at NYU Abu Dhabi, for example, requiring special equipment that will be based in NYU Abu Dhabi or addressing issues that can be investigated especially well in the region or that have special relevance for NYU Abu Dhabi and, more generally, for the Abu Dhabi Emirate. Awards will generally provide support for a renewable term of five (5) years. Signature Initiatives will typically be led by two or more Principal Investigators with additional co-Principal Investigators who may be from NYU, the Abu Dhabi region, or elsewhere. Principal Investigators will typically commit at least 25% of their academic year time and one summer month (or the equivalent) at NYU Abu Dhabi, perhaps in multiple visits of varying duration. Co-Principal Investigators will commit from 10% to 100% of their time to the project.

A substantial and generous operating budget will support a Principal Investigator and multiple co-Principal Investigators, research and administrative staff; visitors or a visitors program; an international conference, seminar, or workshops; travel to companion research groups in NYU; and research supplies and materials. Signature Initiatives in science and engineering will have substantial support for start-up expenses for equipment, including major shared multi-purpose equipment. Signature Initiatives in the arts, humanities, social sciences, theoretical sciences, and professions typically will have fewer capital budget requirements than science Initiatives, but they will have major resources available for computational equipment, staffing, research assistance and materials, travel and other necessities.

### **III. Award Criteria, Review Process, Research Administration**

#### **Criteria for Awarding Research Support**

Proposals for research support will be evaluated in consideration of the following criteria:

- Quality of scientific, scholarly, or creative content;
- Likelihood that research will lead to fundamental advances, new discoveries; technological developments, and/or innovative solutions in the discipline or area of inquiry, or across disciplines or areas of inquiry;

- Scholarly strength and research record of the Principal Investigator(s) and ability to undertake the project successfully;
- Potential for advancing the research mission of the NYU Abu Dhabi Institute and the goals of NYU Abu Dhabi, including contributions to the development of NYU as a Global Network University;
- Potential for advancing the research mission of NYU, including integration of the NYU Abu Dhabi project with research at NYU in New York;
- Plan for a regular and effective presence of the Principal Investigator(s) in NYU Abu Dhabi to conduct and supervise the lab, group or center, or Signature Initiative;
- Scholarly strength and research record of the proposed research team members;
- As appropriate to the research topic, relevance to the interests of the Abu Dhabi Emirate.

## **Department and School Approval of Proposed Project**

All projects must have the support and approval of Department Chairs and School Deans. Principal Investigators, and as appropriate, co-Principal Investigators must consult, reach agreement and obtain the approval of their Department Chair and Dean about plans to apply, plans for maintaining a regular and effective presence in NYU Abu Dhabi, and plans for meeting or adjusting their research and teaching commitments at NYU in New York.

## **Process for Reviewing Applications for Research Support**

Awards will be made on a competitive basis of external peer review and internal review by panels of NYU administrators and faculty. Final award decisions will be made by the NYU Abu Dhabi Institute Research Review Council, which consists of the Provost of NYU, the Vice Chancellor and the Provost of NYU Abu Dhabi, with additional members of the senior academic leadership and faculty of NYU in New York and NYU Abu Dhabi.

In reviewing Pre-Proposals, the Research Review Council will select projects to be developed further, and issue invitations to submit Full Proposals. The review process for Pre-Proposals will include meetings with applicants to discuss project scope, budget, facilities, equipment and timetable.

In reviewing Full Proposals, the Research Review Council will determine the suitability of proposals for further review and refer meritorious proposals to one of three discipline-based advisory panels – one for science and engineering, one for social sciences and the professions, and one for arts and humanities – who will carry out a peer review process that involves consultation with experts outside NYU. Based on these external reviews, each advisory panel will rate the proposals and submit its recommendations to the Research Review Council. The Council will consider the recommendations of all three panels in making final award decisions.

## Research Administration and Policies

The administration and conduct of research at NYU Abu Dhabi are governed by the University's *Guidelines for Sponsored Research* and all applicable University policies. The *Guidelines* address research ethics, openness of research, data management, Principal Investigator status, intellectual property, research involving human subjects, research involving animals, and environmental safety. The *Guidelines* may be found in the Faculty Handbook at <http://www.nyu.edu/oaa/FacHbk2008.pdf> Supplementary policies specific to the NYU Abu Dhabi campus will be clarified and developed in due time as needed.

## IV. Application Deadlines and Award Timetables, Instructions for Completing Applications

### Application Deadlines and Award Timetables (Amended September 2009)

- Proposals for Fellowships and for Creative/Performance Projects that could be housed in interim facilities in Abu Dhabi: The earliest start date for these projects is January 2010, though most projects will start the following year and some projects will only be conducted at the Saadiyat Island campus. **Application Deadline: July 31, 2009.** Awards will be announced by November 15, 2009. This process is now under way.
- Pre-Proposals for Scholarly Groups and Research Centers, Experimental Laboratories, and Signature Initiatives that could be housed, at least initially, in interim facilities in Abu Dhabi: These projects are likely to begin September 2010, or later. **Application Deadline: July 31, 2009.** This process is also under way now.
- Pre-Proposals for Scholarly Groups and Research Centers, Experimental Laboratories, and Signature Initiatives that require the facilities of the Saadiyat Island campus: These projects would start at the opening of the campus, expected to be in Fall 2014 or shortly thereafter. **Application Deadline: July 1, 2010, superseding the previously announced deadlines of October 2009 and March 2010.**
- Full Proposals for Fellowships and for Creative/Performance Projects that could be housed in the Saadiyat Island Campus. **Application Deadline: July 1, 2010.**

Full proposals for Scholarly Groups and Research Centers, Experimental Laboratories, and Signature Initiatives can be submitted by invitation only, based on the results of the preliminary proposal evaluation. Invitations will be issued by October 1, 2010 and instructions for completing full proposals will be issued at that time. Full proposals will be due February 1, 2011 and awards will be announced by July 1, 2011.

Additional opportunities to obtain funding for the full range of activities in NYU Abu Dhabi will be made available in later rounds of competition.

Details about proposal requirements and instructions for submitting applications will be available soon.