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MEMORANDUM

To: Julio Frenk
University President

From: Tomás A. Salerno
Chair, Faculty Senate

Date: March 23, 2017

Subject: Faculty Senate Legislation #2016-45(B) –Establish a University-wide Frost Institute for Chemistry and Molecular Science at the University of Miami

The Faculty Senate, at its March 22, 2017 meeting, voted unanimously to approve the proposal to establish the University-wide Frost Institute for Chemistry and Molecular Science at the University of Miami. It is the first of a series of new institutes that will be created with the goal of elevating the overall quality and research visibility of all the STEM disciplines and help facilitate interdisciplinary research by developing an academic structure that will remove the barriers between departments and schools at the university. This is created due to the generous gift from Dr. Phillip and Patricia Frost.

This legislation is now forwarded to you for your action.

TAS/rh

Enclosure

cc: Thomas LeBlanc, Executive Vice President and Provost
Leonidas Bachas, Dean, College of Arts and Sciences
Angel Kaifer, Sr. Associate Dean, Research and Graduate Education, College of Arts and Sciences

CAPSULE: Faculty Senate Legislation #2016-45(B) –Establish a University-wide Frost Institute for Chemistry and Molecular Science at the University of Miami

PRESIDENT’S RESPONSE

APPROVED:  DATE: 4/10/17
(President's Signature)

OFFICE OR INDIVIDUAL TO IMPLEMENT: Provost Thomas LeBlanc

EFFECTIVE DATE OF LEGISLATION: IMMEDIATELY
(if other than June 1 next following)

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____

Frost Institute of Chemistry and Molecular Science at the University of Miami

Executive Summary

In response to the need to develop academic structures to facilitate interdisciplinary research, break barriers between departments and schools at the University of Miami, and take advantage of the extraordinary gift from Dr. Phillip and Patricia Frost, we propose the creation of the Frost Institute of Chemistry and Molecular Science at the University of Miami.

This Institute will bring together scientists and engineers from several molecular-based disciplines to drive collaborative research work. Through approaches relying on molecular design, discovery, and development, research outcomes will be translated into solutions to significant real-life problems. The Institute will combine efforts from existing and new faculty members, primarily from the College of Arts and Sciences and the College of Engineering, as well as related disciplines in the Miller School of Medicine.

The Institute will be headed by a Director who will report directly to the Provost, with governance mechanisms to assure the involvement of the faculty and deans of the colleges and schools with disciplines contributing to molecular science and engineering. An External Advisory Committee, composed of outside experts, will assess the scientific progress of the Institute and assist the Director in long-term planning.

This initiative will require major investments to achieve national and international recognition in the near term. The Frost Institute will be housed in a new state-of-the-art building to be located in the Coral Gables campus. In addition to this new facility, we envision an endowment that will support:

- Endowed Chairs
- Seed funding for the initial development of pilot projects
- Graduate student and postdoctoral fellowships
- Shared instrumentation facilities

The fact that an endowment will support these foundational needs, which in turn should lead to robust external funding from government agencies and industrial partners, will ensure the financial sustainability of the Institute and its operations in the future.

We anticipate that the creation of the Frost Institute will improve the research visibility of the University of Miami in an important field of science with many potential applications to pressing problems of considerable social significance. The institute will enhance the reputation

of the departments in the College of Arts and Science and College of Engineering involved in molecular science, while improving the University's overall research infrastructure and facilitating the formation of strong interdisciplinary research teams.

Introduction

Over the last few decades, interdisciplinary research and education have been gaining importance to the point that most institutions of higher learning strive to adapt their structures to effectively foster collaborations across disciplinary boundaries. In research, the concept of convergence brings together people, knowledge, ideas, and tools from several disciplines to stimulate innovative approaches to solve complex problems. It represents a significant cultural shift for universities, which have traditionally been organized around discipline-based departments.

In the last three decades, chemistry, biochemistry, biology, engineering and informatics have converged, owing to an explosion of knowledge about the molecular components underlying gene structure and expression, protein function, and cellular signaling. These developments have rendered obsolete any biological research that does not take advantage of available molecular knowledge, approaches, and tools. At the same time, chemistry can be used to modify and mimic living systems, giving rise to the field of Chemical Biology, which opens up tremendous opportunities for the creation of novel functional systems, assisting with extremely complicated tasks, such as catalysis, drug delivery and design, energy generation and storage, and sensing. The arsenal of molecular building blocks that make up living systems, as well as chemical entities, has also piqued the imagination of engineers for a long time. The engineering disciplines have been able to build upon the advances in molecular biology to translate this new knowledge for use by society. Biomedical, Electrical, Chemical and Materials engineers are now creating hybrid devices that derive their key functionality from molecular assemblies and have revolutionary properties to change form, store information, target disease, repair damage, produce motion, and sense environmental change. There is no question that both understanding and manipulating molecules is at the core of all these scientific and engineering disciplines, which can be placed under the general umbrella of molecular science and engineering.

Why create a new institute at the University of Miami since we already have a number of departments working on molecular science problems? The answer lies in the need to remove administrative and disciplinary barriers to foster cross-fertilization of ideas, and to bring researchers with related interests to the same unit, where funds and resources will be available to do creative, collaborative research work that will lead to breakthrough scientific discoveries and facilitate their translation to engineered solutions for real-life problems. By eliminating barriers between molecular scientists and engineers, we can accelerate the pace of progress towards solutions to some of the most pressing challenges faced by human society. Notably, this institute will be built on the idea of multidisciplinary teams, meaning that research and development will be defined by problems rather than by disciplinary or technical abilities.

The creation of this institute at UM seems particularly attuned to our strengths and needs, given the current dispersion of molecular scientists and engineers over our three main campuses. A well-funded research unit, with a clearly defined emphasis on innovation, collaboration and translation, located in a new, state-of-the-art building on the Coral Gables campus, will be an

extremely attractive proposition to these researchers and allow the additional recruitment of world-class faculty and quality trainees, leading to a vibrant community of molecular researchers.

There are a number of similarly named or related institutes. Some of the most prominent examples are listed below:

- (1) Bio-X at Stanford University (<https://biox.stanford.edu>)
- (2) ChEM-H at Stanford University (<https://chemh.stanford.edu/>)
- (3) University of Washington Molecular Engineering and Science Institute (<http://www.moles.washington.edu/>)
- (4) Imperial College Institute for Molecular Science and Engineering (<https://www.imperial.ac.uk/molecular-science-engineering/>)
- (5) Institute for Molecular Science, a component of Japan's National Institutes of Natural Sciences (<https://www.ims.ac.jp/en/>)

Additionally, although the exact model of the Janelia Research Campus of the Howard Hughes Medical Institute cannot be replicated in academia, many of the organizational pieces and scientific philosophy can be brought to the Frost Institute (<https://www.janelia.org>)

Charter for the Proposed Frost Institute of Chemistry and Molecular Science

The following paragraphs describe the proposed Institute of Chemistry and Molecular Science (FICMS) at the University of Miami. This new Institute will capitalize on the magnificent gift from Dr. Phillip and Patricia Frost and build on existing strengths in the area of molecular science at UM, as well as the many opportunities for future work in these areas.

Vision

The Frost Institute of Chemistry and Molecular Science will bring together scientists from a variety of disciplines to develop shared models in the design of solutions to problems in catalysis, materials, molecular sensing, molecular diagnostics, microscale biological mimicry, and recapitulation of biological function, among others. Solutions will be facilitated through the use of collaborative research programs as platforms for discovery, including (but not limited to) novel materials and chemical interfaces, synthetic biology and biomimetic microsystems, and bioinformatics. A key feature of the Institute is the research space itself, which will be designed to enable productive interactions among faculty, students, and staff, minimize hierarchy, and promote flexibility and efficiency.

Mission

The Frost Institute will offer the expertise, infrastructure, and resources necessary to stimulate creativity and facilitate collaboration across disciplines, enabling researchers in molecular-based disciplines to *discover* critical new knowledge at the interface of molecular science and engineering, *design* novel molecular devices and materials, and *develop* this knowledge into real-world solutions to complex problems. These Discovery, Design, and Development efforts will be supported across thematic areas that capitalize key strengths of the University and are poised to translate molecular theories and evidence into practical solutions for the world.

The Frost Institute of Chemistry and Molecular Science will accomplish this by:

- (1) organizing itself around programs in molecular science;
- (2) recruiting and supporting world-renowned faculty who will provide the intellectual leadership within each program;
- (3) deploying state-of-the-art central research facilities within new open and flexible laboratories designed specifically for each program; and
- (4) instituting a support team of technology & business development personnel who will bring expertise in bridging the gaps between discovery, integration, and translation.

It is anticipated that, over time, the Frost Institute of Chemistry and Molecular Science will pioneer an exciting new model of innovation, collaboration, and translation of technologies that interface with chemistry and molecular science. FICMS will also develop a strong reputation as an innovation hub for the education and training of future scientists.

Organizational Overview

The Frost Institute of Chemistry and Molecular Science will focus its research and development efforts on specific programs to create new knowledge in molecular science, to develop new revolutionary materials and devices, and to translate them into products. FICMS will offer expertise, as well as provide central resources within the fields of chemistry and molecular science. These initiatives will bolster the research efforts of existing faculty members and, importantly, can be used to recruit other leaders in the field.

To guarantee its success, FICMS must operate with considerable administrative autonomy. At the same time, it will be very important to avoid turning the institute into a new silo. To that end, FICMS will serve as an innovative organization to effectively integrate interdisciplinary work across departments and schools.

The Frost Institute Director is responsible for articulating and representing the vision of the Institute, as well as providing overall leadership and management. The Director will chair the Internal Advisory Committee (IAC) and communicate progress to the Provost and membership at large.

Internal Advisory Committee (IAC)

Membership:

The Internal Advisory Committee (IAC) consists of faculty members from departments represented in the institute. Committee members may be nominated by their chair, dean, or the director. At the discretion of the IAC, other members of the University research community may be invited to the committee. Committee members will be appointed by the Provost and will serve three-year terms.

Charge:

The IAC advises the Director on strategic planning, project prioritization, and allocation of resources. The IAC also makes recommendations to the Director regarding membership in the Institute.

Meetings:

The IAC will be chaired by the Director who convenes the committee and sets the agenda. The Deans and Vice Provost for Research (or designee(s)) are invited to attend *ex officio* to ensure integration of the Frost Institute into the university community at large.

External Advisory Committee (EAC)

Membership:

The External Advisory Committee (EAC) consists of three external (outside of UM) distinguished experts in Chemistry and Molecular Science, with particular expertise in the programmatic priorities of the Frost Institute. Recommendations for membership may be made by the Institute membership at large, with appointments being made by the Provost. Members serve a three-year term. At the discretion of the EAC, other members of the University research community or outside experts may be invited to attend the annual meetings.

Charge:

The EAC will evaluate the Frost Institute's scientific progress, and make recommendations to the Director regarding any technological, administrative and developmental needs. The EAC will also provide to the Provost and Director an annual written report on the progress of the Institute.

Meetings:

The EAC will have onsite meetings annually, meeting with the Provost, Director, Deans, and Vice Provost for Research (or designee(s)).

Frost Institute of Chemistry and Molecular Science Membership

The initial membership of the Institute will be determined by the Director after consultation with the Deans and the IAC.

Appointments:

UM faculty members are invited to request an appointment in the Frost Institute. These requests are to be submitted through a formal application in writing to the Director. Each Institute member must have a faculty appointment in an academic department at the University of Miami and meet the criteria below. Membership categories (full member, affiliate member) are dependent on the match of research interests with priorities of the Institute. Faculty appointments in the Institute are for a three-year term and renewable upon review by the Director in consultation with the IAC.

Criteria for membership

- Interest in the programmatic topics of the Frost Institute, as evidenced in the submitted justification
- Research activity in the programmatic areas of the Frost Institute, as evidenced by recent research output (e.g., funding, publications)
- Evidence for collaboration/team science approaches, as evidenced by description of previous collaborative activities.

Appointment Process:

1. Submission of the following material:
 - a. Justification for appointment to the Frost Institute; selecting one of the Institute's programs
 - b. CV, including publication and funding record
 - c. Evidence of collaborative initiatives
 - d. Letter of recommendation of the program director within the Frost Institute
 - e. Indication if membership as full or affiliate member is requested
2. Review of appointment request:
 - a. Review of applications by IAC
 - b. IAC recommendation for approval/rejection of appointment to the Director

Should an applicant be denied membership, s/he can appeal in writing to the Institute Director for reconsideration of the decision. The Director can recommend approval or denial of the appeal to the Provost, who makes the final decision. Upon denial of an appeal, the faculty member will be allowed to re-apply after one year.

Frost Institute Membership – Benefits:

Full members:

- Access to shared resources located in the central building
- Application to obtain space within the Frost Institute building
- Access to professional development seminars
- Access to pilot funding for cross-disciplinary research

Affiliate members:

- Access to shared resources
- Access to professional development seminars

Frost institute Membership – Responsibilities:

All Institute members are expected to contribute to the mission and growth of the Frost Institute for Chemistry and Molecular Science through support of and participation in Institute activities:

- Willingness to work collaboratively across disciplines on program-related research
- Active participation in cross-disciplinary workgroups
- Active participation in seminars, symposia and community education, as applicable

- Participation in cross-disciplinary events, courses/classes of a different discipline, and other activities, as applicable and offered
- Participation in professional development events, such as those focused on grant writing and team science
- Provide updated information in a timely manner, as required, and must be willing to share information for the purpose of reporting requirements
- Use of Institute facilities, as provided. For the use of these resources, members may be expected to pay facility charges. The rate will be negotiated with the Director and approved by the Office of Research Administration (ORA).

Review of members:

The IAC will review membership on an annual basis (as determined by the three-year appointment cycle). Each member will be reviewed based on evidence for

- Scientific contributions to the programmatic missions of the Institute;
- Demonstrated collaborative research efforts;
 - Collaborative publications
 - Collaborative grant proposals
 - Mentoring activities
- Participation in Institute research activities; and
- Participation in professional development activities.

Members not meeting these criteria will meet with the Director to discuss their involvement. An Institute appointment is withdrawn if progress is not demonstrated in the 12-month period following this meeting. Should an appointment be rescinded, the member can appeal in writing to the Director for reconsideration of the decision. The Director may recommend approval or denial of the appeal, with the Provost making the final decision. Rescinded members can apply for reappointment after one year.

New Building

Unquestionably, FICMS will require new, state-of-the-art facilities to successfully recruit a group of first-class faculty, quality graduate students, and postdoctoral scholars. The Institute will be housed in a state-of-the-art building to be located on the Coral Gables campus. Both new and current faculty members will occupy research space in this building. The main criterion for the assignment of research space in the building will be the proximity of research teams actively collaborating on a project. As such, the laboratory space will be built to maximize flexibility in order to adapt to changing teams and projects, as time, funding, and effort evolve.

Programs and Research Areas

How focused should the research be in the new Institute? This is a crucially important question that must be addressed at an early stage. Certainly, research on molecular science can relate to many different topics, and the Institute will benefit from the definition of major thrust areas and recruitment of new faculty.

The Institute activities will be initially organized into Programs (led by Program Directors) tasked with leveraging distinct spheres of knowledge and technology to produce novel discoveries within high-value areas of emphasis. Programs will comprise teams of Institute faculty, students, fellows, and expert support personnel with extensive technical, industrial, and business experience.

Based on current faculty strengths, we visualize possible development of research in the general areas of Materials, Chemical Engineering, Light/Matter Interactions, Biological Chemistry, and Chemical Biology. Other research areas may be added, as the possible range of specific research problems is extremely wide. Planning for the Institute will emphasize flexibility, as research topics and teams must adapt to scientific breakthroughs and developments. Researchers will move in and out of space in the new building according to funding levels and the changing needs and goals of the research projects. Structural flexibility will go a long way to guarantee continued relevance and prevent the Frost Institute from becoming a "silo" academic unit.

As concluding remarks, the words of George M. Whitesides, the Woodford L. and Ann A. Flowers University Professor at Harvard University, seem very relevant. He has recently written (*Angew. Chem. Int. Ed.* **2015**, *54*, 3196-3209) that "Chemistry is no longer just about atoms and molecules, but about what it, as a field with unique capabilities in manipulating molecules and matter, can do to understand, manipulate, and control complex systems composed (in part) of atoms and molecules: Its future extends from living cells to megacities, and from harvesting sunlight to improving healthcare." In the same article, he also pointed out that "These new opportunities are, however, much broader in scope and greater in complexity than the simpler, previous problems, and require new structures and methods." An Institute of Chemistry and Molecular Science represents an ideal new academic structure to take full advantage of the possibilities emerging from the molecular science disciplines.

The Frost Institute will have considerable impact, elevating the quality and visibility of molecular science research in several departments, most notably Chemistry, Biochemistry and Molecular Biology, and Biomedical Engineering, as well as related departments of Biology, Computer Science, and Physics. The creation of the Frost Institute will open new avenues of research, increasing quality, flexibility and adaptability within the University of Miami, as we reshape our academic structures to facilitate interdisciplinary work. The Frost investment will also make the University of Miami more competitive in securing major federal funding from the National Science Foundation and other federal agencies.

Budget

The Frost Institute of Chemistry and Molecular Science will be primarily funded by the extraordinary \$100 million gift from Patricia and Phillip Frost, as announced by President Julio Frenk during his inauguration address. Preliminary estimates suggest that about half of the gift will be devoted to the construction of a new state-of-the-art building to house the Institute in the Coral Gables campus. Approximately \$32 million will be used to fund a series of endowed chairs, including a Distinguished Chair for the Institute Director, who will be recruited after a

national search. The remaining balance will support graduate and postdoctoral fellowships, scientific infrastructure, as well as other operational expenses of the Institute.



Office of the Dean

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MEMORANDUM

TO: Tomas Salerno
Chair, Faculty Senate

FROM: Leonidas Bachas
Dean

A handwritten signature in black ink, appearing to read 'L. Bachas'.

SUBJECT: Proposal for the Frost Institute of Chemistry and Molecular Science

DATE: January 6, 2017

At the meeting of the College faculty of Tuesday, November 29, 2016, the faculty voted in favor of the proposal for the Frost Institute of Chemistry and Molecular Science as well as the overall concept of the Frost Institutes of Science and Engineering. (proposals attached). There were two oppositions/abstentions from an attendance of 54 faculty members.

I trust that the Senate will add its support and approve this proposal. I am available should you have any questions or require additional information.

Thank you.



November 14, 2016

Dear Leonidas,

The chemistry faculty formally and unanimously approved the proposal to establish the Frost Institute of Chemistry and Molecular Science. Also, I already discussed with my colleagues the proposal of the Frost Institutes for Science and Engineering, and they support it unanimously. The faculty and I endorse with enthusiasm the concept of Frost Institutes for Science and Engineering.

Sincerely Yours,

A handwritten signature in blue ink that reads "Roger M. Leblanc".

Roger M. Leblanc

Professor and Chair

UNIVERSITY
OF MIAMI



Department of Computer Science

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January 13, 2017

**Re: The Frost Institutes of Science and Engineering, and
The Frost Institute of Chemistry and Molecular Science**

Dean Bachas,

The faculty of the Department of Computer Science, and particularly myself as chair, are fully supportive of the Frost Institutes of Science and Engineering, and specifically the Frost Institute of Chemistry and Molecular Science. We can see that some of the Computer Science faculty will be able to contribute as members of the FICMS.

Best regards,

A handwritten signature in black ink, appearing to read 'Geoff Sutcliffe'.

Geoff Sutcliffe
Professor and Chair of Computer Science

**UNIVERSITY
OF MIAMI**
DEPARTMENT of PSYCHOLOGY



P.O. Box 248185
Coral Gables, Florida 33124-0751

Ph: 305-284-2814
Fax: 305-284-3402

November 9, 2016

Leonidas Bachas, Ph.D.
Dean, College of Arts and Sciences
University of Miami
Coral Gables, FL 33124

Dear Leonidas,

On behalf of the Psychology Department, I want to express the faculty's support for the proposed *Frost Institutes for Science and Engineering*. In addition, the Department would also like to endorse the creation of the first of these Frost Institutes, the *Frost Institute of Chemistry and Molecular Science*. This would be a major step forward for STEM disciplines within the College of Arts and Sciences, and would help to integrate College STEM research and training with other science units at the university.

Please let me know if there is anything that I can do to help with this effort.

Sincerely,

Philip M. McCabe, Ph.D.
Professor and Chairman
Department of Psychology
University of Miami

UNIVERSITY
OF MIAMI



Athula H. Wikramanayake, PhD
Professor and Chair
Department of Biology
215 Cox Science Center
1301 Memorial Drive
Coral Gables, Florida 33124-0421
Ph. 305-284-3988
athula@miami.edu

January 17, 2017

Dr. Tom LeBlanc
Provost and Executive Vice President
University of Miami

Dear Provost LeBlanc,

As the Chair of the Department of Biology, I am writing to indicate that I support the establishment of the proposed Frost Institute of Chemistry and Molecular Sciences (FICMS) under the umbrella of the Frost Institutes for Science and Engineering at the University of Miami. The faculty in the Department of Biology also unanimously support this initiative. The FICMS will significantly enhance the research infrastructure on the Coral Gables campus and as such will benefit all the science departments on this campus. It is our expectation that the FICMS will serve to further enhance the existing collaborations between the Department of Chemistry and the Department of Biology and lead to exciting research breakthroughs that will advance the goals of the Institute. The Department of Biology is ready and willing to provide our full support to ensure the success of the FICMS.


Sincerely,

Athula Wikramanayake, PhD



MEMORANDUM

TO: Leonidas Bachas, Dean
College of Arts and Sciences

FROM: Robert Stephen Cantrell, Chair
Department of Mathematics 

DATE: January 17, 2017

REF: Mathematics Department Support for Frost Institutes/FICMS

This memorandum is to express the strong support of the Department of Mathematics for the overall concept of the Frost Institutes of Science and Engineering as a means of enhancing concentration and focus on STEM disciplines on the Coral Gables campus and for the approval of the first of these institutes, the Frost Institute of Chemistry and Molecular Science (FICMS). We believe FICMS will serve as a vehicle that will result in considerable scientific progress and a significant enhancement of the reputation of the Department of Chemistry at the University of Miami that is very beneficial not only to the College but also to the University as a whole. We look forward to the creation of additional institutes as the STEM@UM Initiative progresses.

**UNIVERSITY
OF MIAMI**



DEPARTMENT OF PHYSICS

P.O. Box 248046
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Ph: 305 284-7123 cohn@physics.miami.edu
Fax: 305 284-4222

To: Leonidas Bachas, Dean
College of Arts and Sciences

From: Joshua Cohn, Chair
Department of Physics

Date: January 18, 2017

Re: Frost Institutes

With the strong support of my faculty, I am writing to convey my department's endorsement for the establishment of the Frost Institutes for Science and Engineering, and for the establishment of the first such institute, the Frost Institute of Chemistry and Molecular Science. We are enthusiastic about the initial investments in science and engineering at UM that these initiatives entail, and look forward to supporting the research and educational mission of the Institutes through mutual collaboration.

UNIVERSITY OF MIAMI
COLLEGE of ENGINEERING



Jean-Pierre Bardet, Ph.D.
Dean and Professor

1251 Memorial Drive
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Coral Gables, FL 33146

Ph: 305-284-6035
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bardet@miami.edu

MEMORANDUM

DATE: January 6, 2017

TO: Tomas Salerno, M.D.
Chair, Faculty Senate

FROM: Jean-Pierre Bardet
Dean

A handwritten signature in black ink, appearing to read 'JP Bardet'.

SUBJECT: Proposal for the Frost Institute of Chemistry and Molecular Science

At the meeting of the College faculty of Monday, December 12, 2016, the faculty voted in favor of the proposal for the Frost Institute of Chemistry and Molecular Science. (copy attached). There was one abstention from an attendance of 37 faculty members.

I trust that the Senate will add its support and approve this proposal. I am available should you have any questions or require additional information.

Thank you.



Antonio Nanni, PhD, PE 1251 Memorial Drive
Professor & Chair MEB Room 325
Civil, Arch. & Env. Engineering Coral Gables, FL 33146

Ph: 305-284-3461
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nanni@miami.edu

MEMORANDUM

DATE: January 14, 2017

TO: Tomas Salerno, M.D.
Chair, Faculty Senate

FROM: Antonio Nanni, Chair *AN*
Dept. of Civil, Architectural and Environmental Engineering *MS*

SUBJECT: Support Letter – Establishment of the Frost Institutes of Science and Engineering.

The faculty of the Department of Civil, Architectural and Environmental Engineering and I approve and endorse the establishment of the Frost Institutes of Science and Engineering as the central organization responsible for the oversight and coordination of the new institutes.

Best regards

UNIVERSITY OF MIAMI
COLLEGE of ENGINEERING



Weiyong Gu, Ph.D.
Professor and Chair
Mechanical & Aerospace Engineering
Professor of Biomedical Engineering

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wgu@miami.edu

MEMORANDUM

DATE: January 16, 2017

TO: Tomas Salerno, M.D.
Chair, Faculty Senate

FROM: Weiyong Gu, Chair *W. G.*
Dept. of Mechanical and Aerospace Engineering

SUBJECT: Support Letter – Establishment of the Frost Institute of Chemistry and Molecular Science and the Frost Institutes of Science and Engineering.

The faculty of the Department of Mechanical and Aerospace Engineering and I approve and endorse the establishment of the Frost Institute of Chemistry and Molecular Science and the Frost Institutes of Science and Engineering.

Thank you.

UNIVERSITY OF MIAMI
COLLEGE of ENGINEERING



Office of the Associate Dean
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E-Mail: sasfour@miami.edu

MEMORANDUM

DATE: January 15, 2017

TO: Tomas Salerno, M.D.
Chair, Faculty Senate

FROM: Shihab Asfour, Ph.D.
Chair, Department of Industrial Engineering

SUBJECT: Support Letter – Establishment of the Frost Institute of Chemistry and Molecular Science and the Frost Institutes of Science and Engineering.

The faculty of the Department of Industrial Engineering and I approve and endorse the establishment of the Frost Institute of Chemistry and Molecular Science and the Frost Institutes of Science and Engineering.

Thank you.

Sincerely,

A handwritten signature in blue ink that reads "Shihab Asfour". The signature is written in a cursive style and is underlined with a blue line.

Dr. Shihab Asfour, Associate Dean of Engineering
Professor & Chairman
Department of Industrial Engineering
University of Miami

UNIVERSITY OF MIAMI

COLLEGE of ENGINEERING



Dept. of Biomedical Engineering
P.O. Box 248294
Coral Gables, FL 33124-0621

Phone: 305-284-2445
Fax: 305-284-6494

DATE: January 12, 2017
TO: Tomas Salerno, M.D.
Chair, Faculty Senate
FROM: Ozcan Ozdamar, Chair
Dept. of Biomedical Engineering

SUBJECT: Support Letter – Establishment of the Frost Institute of Chemistry and Molecular Science and the Frost Institutes of Science and Engineering.

MEMORANDUM

The faculty of the Department of Biomedical Engineering and I approve and endorse the establishment of the Frost Institute of Chemistry and Molecular Science and the Frost Institutes of Science and Engineering.

Thank you.

MEMORANDUM

DATE: January 12, 2017

TO: Tomas Salerno, M.D.
Chair, Faculty Senate

FROM: Mohamed Abdel-Mottaleb, Chair *MA*
Dept. of Electrical and Computer Engineering

SUBJECT: Support Letter - Establishment of the Frost Institute of Chemistry and Molecular Science and the Frost Institutes of Science and Engineering.

The faculty of the Department of Electrical and Computer Engineering and I approve and endorse the establishment of the Frost Institute of Chemistry and Molecular Science and the Frost Institutes of Science and Engineering.

Thank you.

February 16, 2017

Tomas Salerno, M.D.
Chair, Faculty Senate
University of Miami
Ashe Building, Suite #325
252 Memorial Drive
Coral Gables, FL 33146

Re: Council Approved the Frost Institutes of Science and Engineering along with the Frost Institute of Chemistry and Molecular Science at the University of Miami."

Dear Dr. Tomas Salerno,

This is to inform the Faculty Senate that the Medical School Faculty Council met on February 15th, 2017 to approve the **Frost Institutes of Science and Engineering along with the Frost Institute of Chemistry and Molecular Science at the University of Miami.**"

The council members voted to *approve* the proposals.

Respectfully submitted,



Carl Schulman, M.D., M.S.P.H., Ph.D.
Speaker, Medical Faculty Council

Freyre, Maria Betty

From: Minnett, Peter J
nt: Monday, January 16, 2017 7:58 PM
ro: Freyre, Maria Betty
Subject: Re: Proposals for the establishment of the Frost Institutes

Dear Betty,

On Friday, January 13, the RSMAS School Council discussed the proposal for the establishment of the Frost Institute of Chemistry and Molecular Sciences. After discussion, a vote was cast and the School Council voted to support the proposal as presented, with one abstention.

The RSMAS School Council welcomes the opportunity of RSMAS faculty to be involved in improving the STEM activities at the University of Miami and looks forward to making significant contributions in the future. The School Council discussions included concern about the absence of an educational component in the proposal, and regretted that the compressed timetable of the proposal submission resulted in the lack of opportunity to discuss the philosophy and details with RSMAS faculty, and with the proposers.

The RSMAS School Council wishes success to all those involved in setting up and operating this Institute and others enabled by the generous gift of Dr Philip and Patricia Frost.

Sincerely,

Peter

Peter J. Minnett
Professor, Department of Ocean Sciences
Speaker, RSMAS School Council.
Rosenstiel School of Marine and Atmospheric Science
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<http://www.rsmas.miami.edu/people/faculty-index/?p=peter-minnett>

On 1/10/2017 10:05 PM, Freyre, Maria Betty wrote:

Dear Dr. Minnett,

If you could put it on the agenda for Friday's meeting, that would be great.

We appreciate your assistance!

The attached proposals for the establishment of the Frost Institutes must be presented to the RSMAS school council for approval before they can be brought before the General Welfare Committee of the Faculty Senate. On behalf of Dr. LeBlanc, I ask if you would be willing to seek approval of the school council members, via email, for the establishment of the same. This is a time sensitive issue, and we request your assistance at your earliest convenience.

Thank you!

Betty

Maria Betty Freyre
Sr. Manager, Business Operations
Office of the Executive Vice President and Provost
Ashe Bldg., Suite #240
Phone: 305-284-6318
Fax: 305-284-6758
Email: m.freyre@miami.edu



**At the U, we transform lives
through teaching, research,
and service.**

Laurence B. Gardner, M.D., MACP
Interim Dean
University of Miami Miller School of Medicine

December 15, 2016

Leonidas Bachas
Dean, College of Arts and Sciences

Jean Pierre Bardet
Dean, College of Engineering

Dear Leonidas and Jean Pierre,

I would like to express my support for the proposed creation of a Frost Institute of Chemistry and Molecular Science, as well as the overall structure of the Frost Institutes for Science and Engineering at the University. The Frost Institutes will strengthen our research endeavors and will offer great service to our community.

I look forward to our collaborations as we chart the course to our new century.

Best regards,



Laurence B. Gardner, M.D., MACP
Interim Dean
University of Miami Miller School of Medicine



Dean Anuj Mehrotra
5250 University Drive, Jenkins 219
Coral Gables, FL 33146

Phone: 305-284-6515
Fax: 305-284-6526
<http://www.bus.miami.edu>

December 15, 2016

Leonidas Bachas
Dean, College of Arts and sciences

Jean Pierre Bardet
Dean, College of Engineering

Dear Leonidas and Jean Pierre,

I would like to express my support for the proposed creation of a Frost Institute of Chemistry and Molecular Science, as well as the overall structure of the Frost Institutes for Science and Engineering at the University. The Frost Institutes will strengthen our research endeavors and will offer great service to our community.

I look forward to our collaborations as we chart the course to our new century.

Best regards,

A handwritten signature in blue ink, appearing to read 'Anuj Mehrotra', with a stylized flourish at the end.

Anuj Mehrotra

Dean

Leslie O. Barnes Scholar

Professor of Management Science

UNIVERSITY OF MIAMI
**SCHOOL of EDUCATION
& HUMAN DEVELOPMENT**



Office of the Dean
Isaac Prilleltensky, Ph.D
Dean and Professor
Vice Provost for Institutional Culture
Erwin and Barbara Mautner
Chair in Community Well-Being

P.O. Box 248065
Coral Gables, FL 33124-2040
Phone: 305-284-3505
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www.education.miami.edu

December 14, 2016

Leonidas Bachas
Dean, College of Arts and sciences

Jean Pierre Bardet
Dean, College of Engineering

Dear Leonidas and Jean Pierre,

I would like to express my support for the proposed creation of a Frost Institute of Chemistry and Molecular Science, as well as the overall structure of the Frost Institutes for Science and Engineering at the University. The Frost Institutes will strengthen our research endeavors and will offer great service to our community.

I look forward to our collaborations as we chart the course to our new century.

Best regards,

Isaac Prilleltensky
Dean and Professor
Vice Provost for Institutional Culture

UNIVERSITY OF MIAMI
GRADUATE SCHOOL



Graduate School
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Coral Gables, FL 33124-3220

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graduateschool@miami.edu

December 14, 2016

Leonidas Bachas
Dean
College of Arts and sciences

Jean Pierre Bardet
Dean
College of Engineering

Dear Leonidas and Jean Pierre,

I would like to express my support for the proposed creation of a Frost Institute of Chemistry and Molecular Science, as well as the overall structure of the Frost Institutes for Science and Engineering at the University. The Frost Institutes will strengthen our research endeavors and will offer great service to our community.

I look forward to our collaborations as we chart the course to our new century.

Best regards,

A handwritten signature in black ink, appearing to read 'Willy Prado', written over a light blue horizontal line.

Guillermo ("Willy") Prado
Dean
The Graduate School

UNIVERSITY OF MIAMI
ROSENSTIEL
SCHOOL of MARINE &
ATMOSPHERIC SCIENCE



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Miami, FL 33149-1031
Phone: 1 305 421-4000
Fax: 1 305 421-4711
Web Site: <http://www.rsmas.miami.edu>

January 4, 2017

Leonidas Bachas
Dean, College of Arts and sciences

Jean Pierre Bardet
Dean, College of Engineering

Dear Leonidas and Jean Pierre:

I would like to express my support for the proposed creation of a Frost Institute of Chemistry and Molecular Science, as well as the overall structure of the Frost Institutes for Science and Engineering at the University. The Frost Institutes will strengthen our research endeavors and will offer great service to our community.

I look forward to our collaborations as we chart the course to our new century.

) Warm regards,

Roni Avissar, Dean
Rosenstiel School of Marine & Atmospheric Science
University of Miami



Thomas J. LeBlanc, Ph.D.
Executive Vice President & Provost

P.O. Box 248033
Coral Gables, Florida 33124-4628

Ph: 305-284-3356
Fax: 305-284-6758

MEMORANDUM

March 7, 2017

To: Dr. Tomas Salerno
Chair, Faculty Senate

From: Thomas J. LeBlanc, PhD *TJL*
Executive Vice President and Provost

Subject: Approval for the budget of the Frost Institute of Science and Chemistry and the Frost Institute of Chemistry and Molecular Science at the University of Miami

I approve of the proposed budget for the Frost Institute of Science and Chemistry and the Frost Institute of Chemistry and Molecular Science at the University of Miami that will be primarily funded by the \$100M gift from Patricia and Phillip Frost.

TJL/bf

Enclosure

cc: Faculty Senate Office



Thomas J. LeBlanc, Ph.D.
Executive Vice President & Provost

P.O. Box 248033
Coral Gables, Florida 33124-4628

Ph: 305-284-3356
Fax: 305-284-6758

MEMORANDUM

February 1, 2017

To: Dr. Tomas Salerno
Chair, Faculty Senate

From: Thomas J. LeBlanc, PhD *TJL*
Executive Vice President and Provost

Subject: Approval for the Frost Institute of Science and Chemistry and the
Frost Institute of Chemistry and Molecular Science at the University
of Miami

The proposal for the establishment of the Frost Institute of Science and Chemistry and the Frost Institute of Chemistry and Molecular Science at the University of Miami was presented to the members of the Academic Dean's Policy Council (ADPC) at their meeting on February 1st, 2017. At that time, the proposal was voted on and unanimously approved; therefore, it is being forwarded to the senate for their action.

TJL/bf

Enclosure

cc: Faculty Senate Office