

May 24, 2005

Memorandum of Understanding

Background: Rutgers University (Lead Partner), Purdue University (Core Partner), The New Jersey Institute of Technology (Core Partner), and the University of Puerto Rico at Mayagüez (Core Partner,) (collectively referred to as "the partner Universities") have joined forces to develop a proposal to the National Science Foundation (NSF) to establish an Engineering Research Center in Organic Structured Composites (hereon referred to as C-SOC). The purpose of this MOU is to document the agreement among the partners regarding funds sharing, functioning, and decision making in C-SOC.

Declarations:

C-SOC will involve four types of funding:

1. Federal funding from NSF
2. Industrial memberships for C-SOC
3. Matching funds provided by the partner universities
4. Industrial contracts with partner universities
5. Industrial donations, cash or in-kind, to partner universities

J . Resources under categories 1 and 2 will be procured by joint efforts by the partner universities. These resources will be pooled under a unified annual budget and will be used to support (A) administrative expenses, (B) Pre-Competitive Research Program (defined as the sum of all the research activities supported by resources under categories 1 and 2), and (C) human development efforts taking place at the partner universities. These activities are described in the NSF ERC proposal currently in preparation. The remainder of this MOU describes the procedure for allocating these resources to the partners in a fair and productive manner under the joint center structure.

Resources under categories 3, 4, and 5, while counting towards "fund matching" for the NSF, will be procured by efforts of individual universities. These resources will not be pooled, they will remain at the partner institution that procures them.

C-SOC will have three technical Thrusts as follows;

1. Material Synthesis and Functionalization
2. Composite Synthesis and Characterization
3. Manufacturing Science

The scope of these Thrusts is described in detail in the NSF ERC proposal currently in preparation.

Management of the ERC

The ERC will be managed by the Director (Professor Fernando Muzzio, Rutgers), responsible for daily operations and administration.

The Director will be assisted by the Deputy Director (Professor Gintaras Reklaitis, Purdue), and a Site Leader at each Partner Institution (Professor Alberto Cuitino, Rutgers University, Professor Venkat Venkatasubramanian, Purdue University, Professor Rajesh Dave, NJIT, and Professor Carlos Velázquez, UPRM). The Director will be further supported by a Steering Committee and an Advisory Board. Other committees will also be set in accordance with NSF procedures and standing practices.

Research activities will be the responsibility of Thrust Leaders, annually nominated by the Director and approved by the Steering committee.

Education activities will be the responsibility of the Associate Director for Human Development (a Rutgers University staff member designated by the Director), assisted by the Education Committee chaired by a senior tenured faculty member.

The Chair of the Education Committee will be annually nominated by the Director and approved by the Steering Committee.

Daily operations will be the direct responsibility of the Associate Director for Operations (a Rutgers University staff member designated by the Director)

Resource Allocation under C-SOC

The C-SOC budget, prepared annually and revised quarterly, will concern resource categories 1 and 2 above (NSF funds and Industrial memberships), and will have three main types of allocations:

(A) Administrative Funds, detailing resources needed for center operation and management (not to exceed 15% of the total budget)

(B) Research Funds, detailing resources devoted to the C-SOC pre-competitive research program (no less than 70% of the total budget)

(C) Human Development Funds, detailing resources devoted to educational activities, outreach efforts, and diversity promotion programs (not to exceed 15% of the total budget).

Allocations for each partner during the first year of C-SOC will be stipulated in the NSF ERC proposal currently in preparation

For year II and subsequent years, an annual budget of the ERC will be compiled by the Director. Allocations will be made according to the following procedure.

(A) Administrative funds. The partners agree that Rutgers University, as the Lead Partner, is primarily responsible for the administrative and fiduciary operation of the ERC. The administrative budget will be allocated to the lead partner, Rutgers University. The annual administrative budget will be proposed by the Director and approved by the Steering Committee.

(B) Research Funds will be allocated to projects, proposed by faculty teams and approved according to the following procedure:

- Research projects will be proposed by faculty in response to technical goals provided by the Steering Committee
- Advisory Board will provide a ranked list of recommended projects according to criteria provided by the steering committee.
- Research projects recommended for funding by the Advisory Board will be subject to final approval by the steering committee
- Research funds will be allocated to partner universities according to the list of approved projects.

(C) Human Development funds will be allocated to the Partner universities according to the following procedure:

- HD initiatives will be proposed by the Associate Director for Human Development and ranked by the Education Committee.
- A preliminary HD budget will be proposed by the Associate Director for Human Development reflecting the input of the Education Committee.
- HD Budget will be subject to final approval by the Steering Committee.

Intellectual Property Policy

Partners agree that all IP developed by the Pre-Competitive program will be the property of the partner (or partners) that develop it. All partners agree that C-SOC industrial members will have a right to a royalty-free non-exclusive non-commercial (in-house use) license to technology developed under the Pre-Competitive Research Program, regardless of institutional ownership, according to the type of membership (see next section).

Exclusive or semi-exclusive commercial licenses to members, and licenses of any kind to non-members, will bear royalty. These licenses will be negotiated by the partner that owns the IP, only after first-rights to negotiate have been exercised by C-SOC members.

IP generated by research projects funded by industrial contracts with partner universities will be negotiated on a case-by-case basis by partner universities.

Industrial Memberships and Associated Rights

C-SOC will have four types of members:

(i) Thrust Member - \$15K/yr

Rights:

Royalty-free non-exclusive, non commercial (in house use) license to technology developed by the Pre-Competitive Research Program (funded by Federal + memberships monies) within a single thrust

Access to password-protected thrust website containing confidential technology reports

First right to negotiate commercial license within the Thrust

(ii) Center Member - \$30K/yr

Rights:

Royalty-free non-exclusive, non commercial (in house use) license to technology developed by the Pre-Competitive Research Program (funded by Federal + memberships monies) of the entire ERC (all three thrusts)

Access to password-protected center-wide website containing confidential technology reports

Center- wide first right to negotiate commercial license

(iii) Advisory Board member - \$50K/yr

Rights:

One vote at Advisory Board (body that evaluates projects and recommends funding)

Royalty-free non-exclusive, non commercial (in house use) license to technology developed by the Pre-Competitive Research Program (funded by Federal + memberships monies) of the entire ERC (all three thrusts)

Access to password-protected center-wide websites containing confidential technology reports

Center- wide first right to negotiate commercial license

(iv) Steering Committee member - \$100K/yr

Rights:

One vote in Steering Committee (Policy-making body, sets research and education priorities and projects evaluation criteria, makes funding decisions based on Advisory Board recommendations)

Three votes at Advisory Board (body that evaluates projects and recommends funding)

Royalty-free non-exclusive non commercial (in house use) license to technology developed by the by the Pre-Competitive Research Program (funded by Federal + memberships monies) of the entire ERC (all three thrusts)

Access to password-protected center-wide websites containing confidential technology reports

Center- wide first right to negotiate commercial license

Composition of Steering Committee and Advisory Board

Clearly, the Advisory Board and the Steering Committee are important bodies that hold substantial power within the ERC structure, and their roles and composition are critical matters.

The C-SOC Steering Committee is composed by the Director, Deputy Director, the Chair of the Education Committee, the Site Leaders, one representative of each Level IV member company and one representative of the FDA. Each individual holds a single vote. Companies might send multiple representatives to the Steering Committee, but each company holds a single vote. Decisions are adopted by single majority. In case of deadlock vote, the Director holds an additional tie-breaker vote.

The C-SOC Advisory Board is composed by the Director, Deputy Director, Thrust Leaders, the Associate Director for Human Development, one representative of the FDA, one representative of each Level III Member company and three representatives of each Level IV Member company. Each named individual holds a single vote. Decisions are adopted by single majority. In case of deadlock vote, the Director holds an additional tie-breaker vote.

Amendments:

Amendments to these policies can be proposed by Steering Committee and Advisory Boards members. Such changes are adopted if supported by single majority of both the Advisory Board and the Steering Committee.

Signed:

Dr. Fernando Muzzio
Rutgers University

Dr. Gintaras Reklaitis
Purdue University

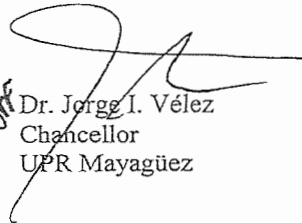
Dr. Rajesh Dave
NJIT

Dr. Carlos Velázquez
UPR Mayagüez

Dr. Michael Breton
VP Res. & Spons. Prog.
Rutgers University

VP Res. & Spons. Prog.
Purdue University

Dr. Donald Sebastian
VP Res. & Spons. Prog.
NJIT


Dr. Jorge I. Vélez
Chancellor
UPR Mayagüez