University-Industry Relationships (UIRs) continue to be an important - some would say critical - part of University culture. They:

- Contribute to the economic development of the state and the nation.
- Expand the utilization of University research and intellectual property.
- Provide students with enhanced educational and research opportunities.
- Provide industry with students who are better prepared for careers in the private sector.
- Provide opportunities for mutually beneficial collaboration, as well as ideas for societally relevant areas of research and technology development.
- Enhance the University's reputation as a valuable member of the local community.
- Help support research financially.

UIRs range in both scope and type. They include, but are not limited to:

- Material transfers.
- Technology licenses.
- Sponsored research agreements.
- Student internships.
- Use of industry data.
- Spin-off companies from University faculty/researchers and staff with or without university IP.
- Use of University facilities.

Given the importance of UIRs, it is necessary periodically to revisit all aspects of UIR negotiations and agreements. The Task Force, formed in January 2010, reviewed prior established guidelines for UIRs and examples of recent negotiations. Noteworthy are the findings and recommendations of the 1999 Report of the previous Joint Senate-Administration Committee on University Interaction with Industry, which are still relevant today; the reader is referred to that document as background material for the current report. As a result the Task Force makes the recommendations contained herein. These recommendations preserve the fundamental guiding principles surrounding education and research, yet foster UIRs that best serve the whole University community, the people and the economy of the State of California and those peoples and economies beyond our state borders.

This report is organized into three sections: the process that was undertaken, the findings that resulted, and the recommendations based on those findings.
Process
A Joint Senate-Administration Task Force on University-Industry Relationships (UIRs) was convened in January of 2010 to reevaluate the issues and opportunities associated with University-Industry partnerships.

The Task Force began by examining input received from Academic Senate members as a result of the notification of the Task Force's formation and the report from a previous task force last convened eleven years prior.

Taylor Gilliland (graduate student observer), Anthony Perez (AVC Health Sciences Affairs) and Kim Barrett (Dean Graduate Studies) were added to the Task Force after discussions among members in an effort to fully represent the campus community.

The chairs of the Task Force met with the outgoing Senate Chair (Bill Hodgkiss) and incoming Senate Chair Frank Powell to review the work of the Task Force and the goals set forth by the Academic Senate.

The directions the Task Force set itself were:

1. To review and update, as needed, the guiding principles put forth in *Academic Senate Principles Underlying Major University-Industry Financial Relationships*, UCSD Academic Senate Committee on Research, March 2009, under which UIR activities should take place.

2. To understand, review, update, and make the University community aware of the process/workflow by which UIRs can and should be formed and conducted.

3. To hear testimonials from a diverse set of groups, both from within and outside of the University, to understand the nature and extent of any problems.

4. To review arrangements in use at other public and private universities to evaluate models for UIRs in the UCSD context.

5. To work through a roadmap of the various processes involved in establishing a UIR under different types of agreements.

6. To make recommendations based on the above.

Testimonials heard concerned sponsored research agreements with multi-national companies; a proof-of-concept fund arrangement; an alternative business model with industry; an incubator model; and a discussion on consulting agreements with an invited company.
Findings

1) UIRs are a means of capturing innovation and maintaining and furthering UCSD’s position as an outstanding institution for research and education. However, UIRs are not without risks relating to, among other things, conflict of interest, academic freedom, and student education. The process of negotiating UIRs seeks to maximize innovation and minimize risk.

2) UIRs may be complex, and this complexity is likely to increase as University members seek new types of relationships catalyzed by changing funding opportunities and the entrepreneurial nature of the University community.

3) Guiding principles for UIRs exist, but need to be updated and are not always well understood by the University community. In any revision, special attention should be given to capturing the entrepreneurship of students and postdoctoral fellows, while taking into account their special position within the University. Any revision should also emphasize the freedom to publish and the preservation of the educational mission.

Current documents defining these principles (and findings associated with each document) include:


The University of California’s Intellectual Property Policies and the Research Enterprise: Review and Recommendations (December 17, 2010) recommends that the 1989 Guidelines on University-Industry Relations be revised by “retaining those elements of the current version that are not covered under other IP policies, incorporating the relevant elements of the Schedule of Sponsor’s Patent Rights, and re-issuing the Guidelines as a high level implementation document for the Principles.” The Task Force agrees that the Guidelines could benefit from this revision.


-- Report of the Joint Academic Senate–Administration Committee on University Interaction with Industry (July 1999)

Some of the issues identified by the 1999 Joint Senate-Administration Committee still persist and hence have not been satisfactorily addressed, namely:

- Use of University facilities for UIRs has not been clarified and current use seems to occur without central oversight because rules on the use of University facilities are not well understood.
• Incubation is a form of use that has been shown to work well elsewhere, as a special use of University facilities, yet guiding principles still do not exist.

• The exemption of certain short-term visitors from signing the "agreement to assign" (patent acknowledgement).

• The establishment of a standing committee to expedite UIRs.

• A website and brochure to guide industry in how to undertake relationships with the University.

4) The University community (undergraduate students, graduate students, postgraduates, staff, and faculty) is a source of broad and innovative means through which to interact with industry, hence all community members must be embraced.

5) Issues when negotiating UIRs include, but are not limited to, questions surrounding ownership and licensing of intellectual property (IP), exclusive access to researchers, export control and publishing rights.

6) While protecting UCSD and adhering to guiding principles is essential, interpretation and/or implementation of UC policy related to IP occasionally differs across UC campuses, which could potentially put UCSD at a disadvantage.

7) It is perceived by some companies that UC defines IP ownership more broadly than other public and private universities, particularly with respect to IP resulting from consulting agreements with UC researchers.

8) On occasion, exceptions to policy have been applied. These exceptions seem appropriate since they cover situations not accounted for in existing policies.

9) An effective mechanism is missing to influence change in the policy and process of establishing relationships at a system-wide level when the need for that change is identified at the campus level.

10) Incubation mechanisms nationwide are varied ranging from interactions focused in one location to satellites dispersed around campus. On balance, incubation mechanisms are working well at other public and private universities, notably UCLA, while incubation mechanisms at UCSD remain ill-defined.

11) The tripartite administration, currently from UCSD Office of Contracts and Grants Administration (OCGA), the Health Sciences Sponsored Project Pre-Award Office (HS SPPO) and SIO OCGA works well for administering grants and contracts because of the different needs and specialties in the three VC areas.
Recommendations

1. The Task Force recommends that a standing committee chaired by the VC for Research or designee and comprising faculty (at least one of whom is not involved in any UIR), an appropriate non-voting public representative, appropriate administrative staff, and a trainee representative, be established and charged with evaluating proposed UIR plans, assessing their value and risk to the campus, and recommending their approval, modification, or disapproval. At the outset the standing committee would define what type of UIRs they would handle and which are exempted. In addition, the committee would seek to expedite complex UIR negotiations and to resolve quickly any bottlenecks that arise during this process, so that a solution satisfactory to both the University and the industrial partner may be arrived at in a timely fashion. Such a standing committee would involve the participation by at least the Conflict of Interest (COI) Office, Tech Transfer Office (TTO), and the Office of Contracts and Grants Administration (OCGA).

2. The Task Force recommends that the guiding principles outlined in Finding 3 should be modified as per Appendix A.

3. The Task Force recommends that the standing committee be charged with evaluating Finding 7 and making a recommendation to act (or not) based on their conclusions.

4. The Task Force recommends that a single centralized information portal be established and kept current and include the roadmap and all related documents. Websites do exist to provide information on UIRs. However, they are neither complete nor current.

As part of portal development, the Task Force endorses Recommendation #1 of the University of California’s Intellectual Property Policies and the Research Enterprise: Review and Recommendations (December 17, 2010) supporting the development of “educational and guidance materials on the University’s intellectual property (IP) policies for use by the campuses in conjunction with an IP policy awareness-raising program developed in collaboration between the UCOP Office of Research and Graduate Studies and the campuses.”

5. The Task Force recommends that a concise, constantly updated and publicly accessible Vice Chancellor of Research-endorsed roadmap for how to conduct different types of UIRs be established by the end of Fiscal Year 2012 and that extensive and ongoing efforts be made to make the university community aware of its existence. The roadmap should also be a guide to industry as to how they approach UIRs. Other features of the roadmap should include:

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1 “Trainee” refers throughout to an undergraduate student, graduate student, or postdoctoral fellow.
Who has final responsibility for approving agreements of various types. Where possible, after appropriate consultation or discussion, approval should be delegated to VC areas.

Expanded provisions to make the University community more aware of potential conflicts of interest.

6. The Task Force recognizes that the University and members of the faculty, staff, and trainees now engage in increasingly complex relationships with industry. There are adequate conflict of interest mechanisms to ensure that such relationships are developed and maintained in accordance with the mission of UCSD and in support of its principal objectives: teaching, research and public service. It is essential, however, that such relationships not create inappropriate external biases affecting the freedom of faculty to pursue all areas of academic inquiry.

7. The Task Force recommends that the disparity between how conflict of commitment and conflict of interest are reported be addressed through an integrated mechanism of disclosure.

8. The Task Force recommends that consistent rules for incubation and more generally use of University property be established that maximize the interchange that can take place during UIRs, but do not compromise the guiding principles.

9. The Task Force recommends that a timeline be set forth and followed in establishing a formal incubation program (given the rules defined in 7).

10. The Task Force recommends: 1) that the UCSD Export Control “Red Team” be formally charged with the responsibility of providing speedy guidance to the campus regarding export control questions and issues related to terms and conditions incorporated in sponsored project agreements; 2) that resources be provided to keep the OCGA and Office of Research Affairs websites current regarding export control regulations and procedures; and 3) the development of online training and/or a decision tree process to assist researchers when contemplating export of materials/equipment overseas.

11. The Task Force recommends that policies and guidelines that explicitly address the interaction of trainees with industry be developed, especially with regard to their participation in internships. Concerns over the scope of such internships (i.e., whether they should be limited to work directly related to the trainee’s research and/or for career development) and the extent to which they require approval (i.e., from the Principal Investigator, departmental/program Chair, and/or the Deans of Graduate Studies and Associate Vice Chancellor for Undergraduate Education) should be dealt with in the policies and guidelines. Additionally, guidance should be provided to include specific reference to trainees in order to clarify the relevant intellectual property and conflict of interest policies.
The Task Force recommends implementing a streamlined process for approving visitor requests in low-risk situations (e.g., visiting academic and government scientists conducting collaborative research on campus). A limited-term pilot program for industrial visitors performing collaborative research on campus should also be implemented to evaluate the need for changes to the portions of the Patent Policy that are relevant to such visitors.
Appendix A

Principles & Guidelines for University-Industry Relationships

A. Principles governing the campus UIR review process [1]

(1) The review process should be as swift and efficient as possible, and not threaten the development of the proposed UIR, especially in terms of time taken.

(2) The review should clearly identify the benefits of the proposed UIR to the campus, both immediate and anticipated.

(3) The review should clearly identify risks to the University that should be mitigated/addressed before the relationship agreement is finalized (see [1]). These risks might include unintended consequences of a UIR, such as deviation from the academic mission of the University, strong campus/community dissent, or loss of public trust.

(4) The review process should permit the involvement of all appropriate stakeholders (potentially including trainees, staff, and non-participating faculty), while at the same time preserving the necessary confidentiality.

(5) The review should ensure that the relationship would operate within University policies and within relevant legal boundaries.

(6) Review committee members with a conflict of interest, or a reasonably perceivable conflict of interest, should not take part in the review.

(7) All proposals should be evaluated objectively and fairly.

B. Principles governing the nature and content of UIR research agreements (drawn in part from [2])

(1) As detailed below and elsewhere in this document, all UIRs must be subject to policies designed to protect essential values and interests of the University. Accordingly, standard language explicitly implementing these protections must be developed and incorporated into each UIR agreement.

(2) All UIR research agreements should include terms that:
(a) Explicitly recognize the sole right of the faculty partner(s) to decide whether and when to publish research results, and acknowledge that such decisions will be based on appropriate scholarly norms and not on the interests of the industry partner.

(b) Forbid censorship of publication content by the industry partner (beyond explicit and legally justified claims to protect trade secrets or similar proprietary data), and minimize any delay or interference with publication (including "first look" rights, which, if granted, should include clear limits and safeguards to protect academic freedom).

(c) Forbid restrictions on disclosing the existence of the UIR.

(d) Minimize restrictions on relationships between campus personnel (trainees, staff and faculty) and "competitors" of the UIR's industry partner.

(e) Disclose the existence of other, simultaneous relationships with the industry partner (if these exist), and spell out in detail how they will be managed so as not to create conflicts of interest or commitment.

(f) Clearly define where decision-making authority regarding the conduct of the UIR resides.

(3) All UIRs will be fully subject to existing campus and University rules and policies regarding conflicts of interest, conflicts of commitment, and protection of intellectual property.

(4) While a UIR is being negotiated with the industry partner, confidentiality is of course essential. But once a research agreement is final, its terms should be made public to the campus and University community. Transparency is vital to the successful integration of a UIR into the life and culture of the campus.

C. Protection of the interests of non-participating faculty

(1) It is essential that UIRs do not abridge the rights of faculty members with respect to academic freedom and research autonomy. No faculty member may be coerced or pressured into participating in any project that is funded through a UIR.

(2) Individuals and committees charged with merit evaluation of faculty (e.g., department chairs, divisional deans, CAP) shall not consider either participating or non-participating faculty as inherently more or less meritorious simply on that basis.
(3) Those charged with making space and resource allocation decisions shall recuse themselves from, and shall not attempt to influence, such decisions in all cases in which they have a conflict of interest because of their own involvement with, or close connection to, a UIR.

(4) Faculty who believe that they have been treated unfairly in connection with either their participation or their non-participation in a UIR shall have recourse through the normal campus complaint processes.

D. Protection of the interests of trainees\(^2\) and research staff

(1) A trainee shall have full freedom to choose and pursue a research project independent of whether it is part of a UIR (assuming both kinds of project are available). Participation in a UIR by anyone — trainee or staff — must be fully informed and entirely willing.

(2) In a similar vein, supervising faculty (research staff supervisors, and mentors of trainees) have a duty not to treat UIR-participating vs. non-participating trainees differently on that basis alone, regardless of whether the supervising faculty is involved in the UIR. UIR and non-UIR research activities should not be treated or portrayed as inherently more or less important or valuable to the PI or to the laboratory/department/division.

(3) Faculty mentors must continuously seek to ensure that a trainees UIR-sponsored research activities are in the trainee's best interests, and are consistent with, and supportive of, his/her long-term career goals. UIR-participating trainees remain University-appointed personnel, and must not be viewed or treated as employees of the industry partner.

(4) UIR-sponsored research activities carried out by trainees and staff shall be subject to the full range of campus training and safety regulations applicable to non-UIR research. That UIR-related research may be proprietary and/or confidential shall not in any way compromise normal campus oversight of training and safety practices.

(5) Measures and standards must be put in place to minimize interference with the right of trainees to publish their research promptly and to present it at meetings or when seeking employment or another research position.

\(^2\) “Trainee” refers throughout to an undergraduate student, graduate student or postdoctoral fellow.
E. Principles governing review, approval, and oversight of large UIRs

(1) The Standing Committee shall determine whether or not each proposed UIR should be classified as "large," based on the committee's evaluation of various size/impact criteria, including: budget amount; number and/or percentage of participating faculty, trainees, and research staff; commitment of campus space and other campus resources; and proposed duration (see Recommendation 1). All proposals for UIRs classified as large must be submitted to the appropriate committees of the UCSD Academic Senate for independent review.

(2) Large UIRs have the potential for serious negative impacts on people and projects not connected with the UIR. Both the large-UIR review process and the subsequent oversight of a large UIR's operation must ensure that "there remain sufficient institutional resources and support to allow the flourishing of research not allied with" the UIR [2]. "The key question is whether the UIR occupies so much of the department's/division's potential research capacity that it crowds out non-conforming research agendas" [2]. Major reallocation of internal university resources in connection with a UIR requires rigorous scrutiny and extensive justification.

(3) The larger the proposed UIR, the more vigorously must the academic and scholarly culture and mission of the department/division be protected. Not only must the special risks inherent in a large UIR be identified during the review process [see A(3) above]; additional measures that will mitigate these special risks must also be developed and implemented as a requirement for approval.

(4) During both the review and the operation of a large UIR, due consideration must be given to the consequences of the eventual termination of the agreement. Measures must be put in place to protect the training and career opportunities of participating researchers at all levels, to avoid major disruptions resulting from the loss of such a large fund source.

F. Principles regarding the total scope of UIR activity and its impact on the campus

(1) Beyond the normal process of proposal and approval of individual UIRs, departments, divisions, and the campus must periodically re-evaluate the cumulative impact of the aggregate portfolio of existing UIRs. Such review should address large-scale questions such as the following:

(a) What has been the overall impact of UIRs on the academic and scholarly culture and tradition of the campus?
(b) Is there still an appropriate balance between academically driven goals (discovery, scholarship, intellectual advancement, instruction/training) and industry-centric goals (technology, patents, products, companies)?

(c) What has been the effect on the status and health of the arts/humanities, social sciences, and other typically non-participating disciplines on campus?

(d) How effective are the campus's measures for the protection of academic freedom, research autonomy, and the interests of trainees, research staff, and non-participating faculty?

(e) Are there routine provisions within UIRs that have not worked as intended, and hence should be revised in future agreements?

(f) What specific, tangible benefits have come to the department/division/campus as a result of participation in UIRs?

(g) How effective and efficient is the campus UIR review process? Are changes in the process called for?

References
