

**Office of the President**

**TO MEMBERS OF THE COMMITTEE ON EDUCATIONAL POLICY:**

**ACTION ITEM**

*For Meeting of July 23, 2015*

**ESTABLISHMENT OF A JOINTLY OPERATED RESEARCH AND EDUCATION  
INSTITUTION WITH TSINGHUA UNIVERSITY IN SHENZHEN, CHINA, BERKELEY  
CAMPUS**

**EXECUTIVE SUMMARY**

The Berkeley campus proposes to establish an incorporated Sino-foreign non-profit jointly operated research and education institution with Tsinghua University, consistently ranked as one of the top three science and engineering universities located in the People's Republic of China. Tsinghua University is based in Beijing but also maintains a campus in Shenzhen, China. The non-profit institution would be formed and operated to develop a joint Tsinghua-UC Berkeley Shenzhen Institute to conduct research in Berkeley and Shenzhen and to support graduate education at both locations.

By creating a joint institution with new facilities, UC Berkeley will gain new research opportunities and access to equipment that is harder to acquire at the campus level. In addition, working with Tsinghua in Beijing and Shenzhen will critically enhance UC Berkeley's strategy to engage with international partners in China and elsewhere in Asia. The campus also expects that the collaboration with Tsinghua will strengthen campus ties to Chinese companies who will be able to sponsor campus research in China and in Berkeley. Finally, it will provide an avenue for addressing some of the larger research questions studied by scientists at each university. At the time the joint institution was proposed, the Berkeley Chancellor noted that it would enable complex, multidisciplinary collaborations necessary to confront societal and economic challenges common to China and California, as well as those that are global in scale and know no national borders.

In proposing this program, UC Berkeley is following the path established by other UC campuses in creating large-scale international partnerships and is building on its own international work. In 2014, UCLA formed a Sino-foreign contractual joint venture company with Centre Testing International, a publicly traded Chinese company, for the purpose of developing and operating a clinical laboratory in Shanghai, China. The new laboratory supports clinical trials and enhanced medical care for Chinese patients with cancer and other diseases. That same year, UC Davis established its Life Sciences Innovation Center in partnership with the Chilean Economic Development Agency. The Davis center supports research on the agricultural sector with a focus

on plant breeding, post-harvest, and climate change technologies. It also facilitates the transfer of life sciences technologies from UC Davis and collaborative UC Davis-Chile programs to industry in Chile and links certain educational and capacity-building programs at UC Davis with Chilean partners. Finally, Berkeley's proposed Shenzhen institute with Tsinghua builds on UC Berkeley's work in establishing a collaborative research center funded by Singapore's National Research Foundation. The Berkeley center in Singapore focuses on research related to new technologies supporting energy efficiency in buildings in tropical environments and new sustainable energy sources.

Under the terms of the proposed joint institution, Tsinghua University and The Regents would each have a 50-percent interest in the entity and would establish the entity with funding provided by the Shenzhen municipal government. In addition, to facilitate funding for the Berkeley obligations, Tsinghua University's fundraising entity in the U.S., Tsinghua Education Foundation (N.A.), Inc. (TEFNA) will raise funds from its U.S. donors and distribute a portion of its proceeds to UC Berkeley. TEFNA will not be contacting Berkeley donors as part of its fundraising efforts.

Besides performing the activities in the U.S. funded by TEFNA, UC Berkeley would make only in-kind contributions of research work, expertise, and oversight of graduate students, in Shenzhen and in Berkeley. UC Berkeley would also agree to license its name in connection with the joint institute. As described below, UC Berkeley faculty will receive consulting fees for their work in Shenzhen, but the University's Chinese counsel has advised the campus that the total contribution of the campus will qualify as an in-kind contribution under Chinese law.

### **RECOMMENDATION**

The President of the University recommends that the Committee on Educational Policy recommend that the Regents:

1. Approve the participation of the Berkeley campus in a non-profit jointly operated research and education institution with Tsinghua University to be named the Tsinghua-UC Berkeley Shenzhen Institute (TBSI) to operate the institute and associated research centers in Shenzhen, China, and in Berkeley subject to the following conditions:
  - A. The institution will be jointly operated by Tsinghua University and The Regents, each having a 50-percent interest in the institution. Under Chinese law, The Regents' contribution will be in-kind contribution of research services and expertise, academic mentoring of graduate students, and the use of UC Berkeley's name as described below.
  - B. The Shenzhen municipal government will provide the capital contributions and fixed assets required to operate the institute. The initial phase of funding will be approximately \$52 million for activities in Shenzhen. Activities in Berkeley will be funded by the Tsinghua Education Foundation (N.A.), Inc. (TEFNA) in an amount of \$22 million over five years.

- C. The institution will be governed by a governing board. The Berkeley Chancellor will appoint four members to the board. Tsinghua University will appoint four members to the board and the Shenzhen municipal government will appoint three members.
- D. TBSI will have two Institute Co-Directors and two Deputy Co-Directors; in each case one will be appointed by UC Berkeley and one by Tsinghua University. The institute will initially include three research centers that will be led by Co-Directors. UC Berkeley and Tsinghua University will each appoint a Co-Director for each research center. The Institute Co-Directors will also serve in two of the six Center Co-Director positions based on their research areas of interest.
- E. The use of UC Berkeley's name will be licensed to the new non-profit entity for co-branding purposes in connection with the operation of TBSI, which will be consistent with both California statutes and University of California policy.
- F. Prior to the establishment of the new institution, the initial formational documents and any amendments shall be subject to the approval of the Chancellor following consultation with the General Counsel.
- G. A three-party agreement among Tsinghua University, The Regents, and the Shenzhen municipal government will be signed based on the agreement between Tsinghua University and The Regents. The three-party agreement will constitute Shenzhen's endorsement of TBSI and Shenzhen's funding commitment to the establishment and operation of TBSI. No new legal entity will be created as a result of the three-party agreement.
- H. Under the applicable People's Republic of China (PRC) regulations permitting jointly operated Sino-foreign educational institutions to operate in a preparatory phase prior to required approval by the PRC Ministry of Education, Tsinghua University and UC Berkeley intend to operate the institution in this manner under the name "TBSI (in Preparation)," as is common in the PRC, and in accordance with applicable PRC regulations.
- I. Either party may terminate the Master Affiliation Agreement by providing 90 calendar days notice. Upon termination, UC Berkeley and Tsinghua University will dissolve the institution or Tsinghua University will acquire UC Berkeley's interest. In either case, the license to use the name TBSI will be terminated. UC Berkeley may invoke its termination right for any reason, including, but not limited to, (i) the disapproval by the Ministry of Education of TBSI as a Sino-foreign jointly operated research and educational institution; (ii) any uncured material breach by Tsinghua University of its obligations to UC Berkeley; or (iii) the failure of the Shenzhen municipal government or TEFNA to provide the necessary funding previously committed.

2. Authorize the President or her designee, following consultation with the General Counsel, to approve and execute (i) any documents reasonably required to participate in the jointly operated institution as described above, including but not limited to a Master Affiliation Agreement, an Agreement on a Sino-Foreign Jointly Operated Educational Institution, Articles of Association for the institution, an Inter-Institutional Agreement for the management of intellectual property in accordance with the terms of the Master Affiliation Agreement, and sponsored research agreements for research performed at UC Berkeley; and (ii) any modifications, addenda, or amendments (collectively, “amendments”) provided, however, such amendments do not materially reduce the rights of The Regents or materially increase the obligations of The Regents.

### **BACKGROUND**

For the past several years, the Berkeley campus has been working with Tsinghua University to explore the opportunity to create an alliance to benefit both institutions. These efforts were expressed in a nonbinding memorandum of understanding styled as a “Strategic Partnership Agreement” signed in October 2012 and two addenda, the most recent of which was signed on September 7, 2014 by UC Berkeley’s Chancellor and Tsinghua’s President, Chen Jining. Mr. Chen has since been appointed to the Ministry of Environmental Protection as its new minister, but remains very interested in the joint institute and the current Tsinghua leadership remains similarly interested.

The Berkeley campus considers Tsinghua University to be a very important partner in China. Often described as “the MIT of China,” Tsinghua is consistently ranked as one of the top three science and engineering universities located in the People’s Republic of China. Creating a joint institute with new facilities will provide research opportunities for faculty and students, and access to equipment that is harder to acquire at the campus level. Tsinghua University is based in Beijing but also maintains a campus in Shenzhen, China. The non-profit institution would be formed and operated to develop TBSI to conduct research in Berkeley and Shenzhen and to support graduate education at both locations.

Working with Tsinghua University in Beijing and Shenzhen builds on UC Berkeley’s strategy to engage with international partners in China and elsewhere in Asia. Finally, the campus expects that the collaboration with Tsinghua will strengthen campus ties to Chinese companies which will be able to sponsor campus research in China and in Berkeley. Shenzhen is the headquarters of several well-known major Chinese companies including Alibaba, BYD, Mindray, and Tencent, and Berkeley faculty have already begun exploring the potential for research support.

Tsinghua-UC Berkeley Shenzhen Institute (TBSI) is a separate project and not connected to UC Berkeley’s discussion with Tsinghua about its possible participation in the Berkeley Global Campus at Richmond Bay (BGC). Berkeley would proceed with TBSI even if Tsinghua decided not to participate in BGC.

At the same time, however, because TBSI represents a significant partnership agreement between UC Berkeley and Tsinghua University, it marks an important milestone in the overall

relationship between the two universities; it would therefore only be natural for Tsinghua to consider future potential commitments in California in light of the progress of the Shenzhen collaboration.

Under the most recent agreement addendum, the two schools agreed to work to jointly establish TBSI at Tsinghua University's campus in Shenzhen, China to perform multidisciplinary research programs, develop novel graduate education programs, and provide training in entrepreneurial activity. Within TBSI, UC Berkeley and Tsinghua University plan to form three research centers as the initial phase of work. These three centers will focus on Environment and New Energy; Information Technology and Data Science; and Precision Medicine and Healthcare. With respect to Tsinghua graduate students, Berkeley faculty members will not direct Tsinghua masters or doctoral degrees; UC Berkeley faculty's formal role will be limited to serving as outside members on degree committees. In addition, they may offer Tsinghua graduate students substantive informal mentoring. No joint degrees will be offered and TBSI will not offer degrees in its own name. Tsinghua students coming to UC Berkeley would pay the standard associated fees if enrolled in classes. They may also come to perform research at the TBSI facilities in Berkeley. In either case, such activities will be undertaken in accordance with the regulations and policies of both institutions.

UC Berkeley is committed to providing the best education and performing superior research in supporting the mission of the University of California. By partnering with Tsinghua University to establish TBSI, UC Berkeley is partnering with the top research and education partner in most fields in China. The facilities that will be constructed with the funding from the Shenzhen municipal government are being established in consultation with Berkeley faculty to procure equipment that is not presently available at Berkeley, thus extending the research capabilities of the faculty. More than \$21 million of the initial \$52 million in funding is being spent on this new equipment, effectively adding facilities and equipment to Berkeley's research capacity. The expected equipment includes some that is resource intensive and not readily available on campus, such as high-throughput e-beam lithographers, high-resolution bio-imaging instrumentation, and other similar equipment.

Additionally, the three TBSI centers' research areas address issues that are not only strengths at UC Berkeley and important to California but also represent significant challenges faced in China – in areas such as water and air pollution, logistics, transportation, health care, and data science – that are brought on by high population and rapid urbanization. Working on solutions in these areas will provide an enormous opportunity to learn lessons that will enable greater sustainable growth here and further support UC Berkeley's public service to the citizens of California.

To support TBSI, UC Berkeley will appoint certain tenured, full-time faculty who will act as Core Principal Investigators (Core PIs) and will have certain duties as described below in the academic personnel section. As an incentive to participate in the TBSI work, the Core PIs will receive funding to support two doctoral students per Core PI. With this funding, faculty researchers would be able to significantly grow their research and doctoral education capabilities in Berkeley. Most Core PIs employ an average of six doctoral students per faculty member; therefore, the two additional students would effectively increase their student and research output

by one-third. The cross-fertilization that will result from visiting students in both directions will also increase Berkeley student and faculty knowledge of industry, technology, economic, and cultural conditions in the world's second largest economy. The growing globalization of education as demonstrated by the activities of numerous peer universities (such as the University of Michigan, NYU, Carnegie Mellon University, MIT, and Duke, among others) means that UC Berkeley must respond with initiatives such as TBSI to compete with leading universities for top faculty and students.

Shenzhen is located in the Guangdong province immediately north of Hong Kong. It is the site of China's first Special Economic Zone and has become one of its most successful, having grown to a population of nearly 15 million in a few, short decades. Because of this significant economic activity, the Shenzhen municipal government is in a position to provide substantial support to the TBSI initiative and it entered into a three-party nonbinding memorandum of understanding with Tsinghua University and UC Berkeley on September 7, 2014.

### ***Structure***

TBSI will be organized as a scientific research and education institution and its activities will be performed in Shenzhen and in Berkeley. The institute will be led by two Co-Directors, the Associate Dean for Strategic Alliances in Berkeley's College of Engineering and the Dean of Tsinghua's Graduate School at Shenzhen. The Institute Co-Directors will recruit and appoint two Center Co-Directors from UC Berkeley and Tsinghua University respectively for each of the three research centers. The Institute Co-Directors will also serve in two of the six Center Co-Director positions based on their research areas of interest.

As a legal entity, the institute will be registered in Shenzhen as a nonprofit Sino-foreign jointly operated educational institution. The Regents and Tsinghua University will each have a 50-percent interest in the nonprofit entity. The University will not be responsible for making any cash contributions in establishing the institute or in connection with forming the joint institution. Tsinghua University will be responsible for providing all cash contributions to the joint institution, which will be based on funds provided by the Shenzhen municipal government. The Shenzhen government will provide \$52 million for the initial phase of work and additional operating funds over five years. Shenzhen's funding commitment will be documented in a three-party agreement among Tsinghua University, The Regents, and the Shenzhen municipal government. The three-party agreement will be based on the Master Affiliation Agreement between Tsinghua University and The Regents, and will not modify the terms of the Master Affiliation Agreement. The Master Affiliation Agreement will establish a legal entity between Tsinghua University and UC Berkeley; no additional legal entity will be created as a result of the three-party agreement.

To establish and operate TBSI as a Sino-foreign jointly operated educational institution, Tsinghua and Berkeley will need to submit a formal application to the People's Republic of China (PRC) Ministry of Education. As part of its review, the Ministry of Education will need assurances that both UC Berkeley and Tsinghua University are committed to the enterprise. For Berkeley's part, this commitment would be demonstrated by the approval of the Board of The

Regents and the execution of the Master Affiliation Agreement if the Regents authorize the campus to proceed. Prior to its operation, TBSI is permitted to perform certain functions in a preparatory phase under Chinese law. Before approval by the PRC Ministry of Education, it may use the name “TBSI (in preparation)” as is customary under Chinese law and is limited to certain start-up activities such as establishing facilities, purchasing and installing equipment, and preparing for formal operation. It may not perform the activities that the institution will perform after receiving Ministry of Education approval, such as performing research or educating students, and it may not recruit students into TBSI.

The funding for the UC Berkeley work and the efforts to set up the institute during the first year will be provided by Tsinghua Education Foundation (N.A.), Inc. (TEFNA), Tsinghua’s fundraising entity in the U.S. TEFNA is a tax-exempt, non-profit corporation formed in Delaware in 1997. The first year activities to establish TBSI operation at UC Berkeley will be through a \$3 million gift. In the second through fifth years of the agreement, TEFNA will enter into sponsored research agreements with UC Berkeley and Chinese corporate partners and provide an additional \$19 million. These sponsored research agreements will provide that standard indirect costs will be assessed in accordance with campus policy and will provide a right for the corporate partners to negotiate a license to the intellectual property created under the agreements as third-party beneficiaries to the sponsored research agreements.

### ***Academic Personnel***

Under the model proposed for TBSI, the Berkeley Core PIs will be responsible for advising the Tsinghua Principal Investigators managing the research programs at laboratories in Shenzhen. At Berkeley, the Core PIs will manage TBSI research programs with advice from the Tsinghua faculty. The Berkeley faculty will also teach short courses during the summer session and will serve as non-voting advisors to the Tsinghua faculty who are carrying out Tsinghua graduate admissions and faculty hiring for TBSI.

The Core PIs will be expected to spend eight weeks per year over the initial five-year period in Shenzhen. While consulting days may be used during the academic year toward the fulfillment of this commitment, most of the eight-week commitment will be fulfilled during the summer. Other Berkeley faculty who take part in TBSI activities will be listed as Participants. The commitment of time to TBSI by Participants is two to four weeks per year and may be fulfilled during the summer only. All participating Berkeley faculty members will be academic-year appointees.

No joint Tsinghua-Berkeley degrees will be offered and no degrees in the name of TBSI will be offered. Students admitted to Tsinghua University receiving instruction and performing research in TBSI in Shenzhen will receive Tsinghua degrees. Students admitted to UC Berkeley receiving instruction and performing research in TBSI in Berkeley will receive UC Berkeley degrees. Berkeley faculty will not direct Tsinghua masters or doctoral degrees; their formal role will be limited to serving as outside members on degree committees. In addition, they may offer Tsinghua graduate students substantive informal mentoring.

During both consulting days and the summer, all Berkeley faculty members working as Core PIs or Participants in Shenzhen will be paid as consultants. They will not receive salary from TBSI and will not be employees of TBSI. Although they will be paid as consultants, the faculty, whether Core PIs or Participants, will agree to assign any inventions made while working on TBSI matters to The Regents. The University's retained counsel has advised the campus that such an arrangement is permitted under Chinese law and has assisted in the preparation of agreement terms to effectuate that goal.

In addition to the funding for the faculty, UC Berkeley will receive funding to support two Berkeley Ph.D. students for each faculty member serving as a Core PI for a five-year period. This funding will amount to \$22 million over the five years. It will be provided through an initial gift from TEFNA to establish TBSI and then through a series of sponsored research agreements, which will be prepared in accordance with University policy and which will provide for standard overhead for the funded activities.

### ***Management and Governance***

TBSI will be overseen by a governing board composed of 11 members, with four appointed by UC Berkeley, four appointed by Tsinghua University, and three appointed by the Shenzhen municipal government. The board will be co-chaired by the Berkeley Chancellor, the President of Tsinghua University, and the Shenzhen Mayor. Certain major decisions enumerated in the Master Affiliation Agreement, such as the transfer of all or substantially all of the institute's assets, annual budget and operating plans, or appointment of governing board members, will require super majority (minimum of eight votes) approval of the board. All other decisions by the board will be made by simple majority vote. All resolutions made at board meetings must be confirmed in writing and records of such decisions maintained. The Institute Co-Directors will prepare the annual operations plans and budgets and, with the board's approval, will manage TBSI operations.

The institute's financial reporting must be undertaken in accordance with international standards and the accounting rules adopted by the company must be approved by the University. In addition, the board will also appoint an internationally recognized, independent auditor who will review and audit the company's financial reports

### ***University Oversight***

The University will be represented on the company board by the UC Berkeley Chancellor and three other individuals appointed by the Chancellor. Those individuals will report to the Chancellor or his designee. In addition to support from the Office of the General Counsel, UC Berkeley will continue to seek the advice of retained counsel in China as to the applicable PRC laws and regulations that may bear on TBSI's operation.



*Financial Impacts and Risks*

There are unknown risks to doing business in China. Tsinghua University is one of the leading research universities in the country and UC Berkeley has established a working relationship with Tsinghua over many years and through a number of collaborative projects, albeit smaller in scope than TBSI. UC Berkeley has also engaged legal counsel in China, who are advising the University on business law and practice and assisting in the drafting of the relevant legal documents to protect the University's interests. The agreements will include provisions requiring compliance with applicable PRC and U.S. laws. An independent audit of the company will be done annually.

UC Berkeley's financial risk is mitigated by virtue of the funding for the institute being provided by the Shenzhen municipal government for activities in Shenzhen and by TEFNA for activities at UC Berkeley. Instead of making cash contributions, UC Berkeley will provide research expertise, academic mentoring and training, and the use of its name for TBSI marketing purposes in exchange for its 50-percent ownership interest in TBSI.

There are other risks that, given the uncertainties in Chinese law and regulation, may best be viewed as only partially mitigated. In the area of intellectual property (IP), UC Berkeley has relied on the advice of retained counsel to draft protective language in the Master Affiliation Agreement. This language states that IP generated by Berkeley researchers, even when working in China, remains the property of The Regents. However, Chinese regulations state that IP resulting related to "state security, state interest, or public interest" will be owned by the state or freely licensed by the state. Counsel has noted that the definition of "state security, state interest, or public interest" is vague and subject to the determination of the PRC government. Therefore, while the University has mitigated this risk by having counsel analyze the particular projects selected for TBSI, counsel has also advised that there is a residual risk, albeit low, that a later governmental determination could result in state ownership of IP created by Berkeley researchers. In this regard, the University faces a risk equivalent to any foreign business operating in China and creating IP as part of its activities.

UC Berkeley has a global reputation and to compete globally for top-ranked scholars and students, it must increase and maintain its global presence. An important component of the campus strategy is expanding its presence in Asia, and TBSI will enhance its reputation in China. The biggest risk that is reasonably foreseeable is that if TBSI were ultimately unsuccessful, it could harm UC Berkeley's reputation, damage the campus' strategy in China and Asia, and place Berkeley at a competitive disadvantage to other leading universities pursuing major joint initiatives in China.

*Termination*

The Master Affiliation Agreement will provide that it may be terminated at the discretion of the parties by providing 90 calendar days notice. Upon termination, UC Berkeley and Tsinghua University will dissolve the institution or Tsinghua will acquire Berkeley's interest. In either case, the license to use the name TBSI will be terminated, as will any sponsored research

agreements that rely on TBSI. The University will have no obligations under the agreements once the agreements are terminated and the non-profit entity is dissolved, except as described below. The dissolution of the entity would be performed in accordance with the law of the PRC.

Even if the Regents approve proceeding with the formation of TBSI, as stated above, the formation and operation of TBSI requires approval by the PRC Ministry of Education. The campus expects that such approval will be forthcoming due, in no small part, to having such a prestigious partner in Tsinghua and through the significant financial support of the Shenzhen municipal government. However, should the Ministry of Education not approve, UC Berkeley would terminate the agreement and negotiate an appropriate use of the gift funds provided by TEFNA. In addition, the campus would terminate the agreement for any uncured material breach or in the case of the failure of the Shenzhen municipal government or TEFNA to provide the necessary funding previously committed.

If TBSI is approved by the Ministry of Education and termination of the agreement occurs after a period of operation, any contributed capital remaining and fixed assets will be returned to the Shenzhen municipal government. The parties will enter into an inter-institutional agreement for the management of intellectual property that will survive the termination of the master affiliation agreement. The inter-institutional agreement will provide that Tsinghua University and The Regents will receive, in equal shares, any revenue based on licensed intellectual property generated during the period of the institute's operation. Despite the clearly expressed intention of the parties, counsel has advised that, at time of liquidation, the disposal of the remaining assets will be determined by the Shenzhen municipal government. Therefore, it is possible that the allocation agreed upon by Tsinghua and UC Berkeley would be modified by Shenzhen.

#### **ACRONYM LIST**

BGC	Berkeley Global Campus
Core PIs	Core Principal Investigators
IP	Intellectual Property
PRC	People's Republic of China
TBSI	Tsinghua-UC Berkeley Shenzhen Institute
TEFNA	Tsinghua Education Foundation (N.A.), Inc.