

Team Masters Project

A
Productivity
Tool
for Your
Life Science
Company



KECK GRADUATE INSTITUTE
of Applied Life Sciences

Capstone of KGI curriculum

KGI takes the task of a TMP seriously, classifying the project as the capstone experience for graduates of our Master of Bioscience program. The TMP replaces the traditional master's thesis work. Students are graded on the project.

Innovative Solutions to Real World Problems

By sponsoring a TMP, your organization benefits from:

- The opportunity to use expanded management bandwidth without having to invest in additional permanent managerial assets.
- A chance to address a specific opportunity or solve a problem that might otherwise have been relegated to a lower priority.
- An integrated business/science perspective that more comprehensively analyzes a situation and recommends an action plan.
- The opportunity to tap into the abilities of KGI graduate students—some of the brightest talent in the world.

Spanning the continuum from highly technical to highly business-oriented

Projects are both science- and business-oriented and have included efforts in our five focus tracks:

- Business of Bioscience
- Bio/Pharmaceutical Discovery and Development
- Bioprocessing
- Clinical and Regulatory Affairs
- Biomedical Devices and Diagnostics

KGI will work with you to help focus your project and maximize outcomes.

Confidentiality

All students, faculty, and staff involved in your project sign confidentiality disclosure documents.



Is a Team Masters Project Right for Your Organization?

Use this handy checklist to determine how a Team Masters Project could benefit your firm.

YES NO

- We have more projects than qualified staff to handle them.
- We invest extensively in consultants and outsourcing just to keep up with operational requirements.
- Our organization needs more business analysis, but we don't have time to train business managers about science and technology.
- Sometimes we are too close to a problem to effectively identify solutions.
- To save time, we need to be able to work on multiple parts of an initiative simultaneously.
- It's important to better understand our competitors, but we are unclear how to go about this.
- Our organization needs access to new talent and a mechanism to pre-screen potential employees performing in a work setting.

If you answered "yes" to at least one of these questions, consider a TMP.

Tomorrow's bioscience business leaders working on your project today

Once your project is defined, it is assigned to a team of three-five advanced graduate students. Focused and highly capable, our students have backgrounds in biology, bioengineering, chemistry, physics, medicine, and more. Many of them also have work experience with life science or technology firms.

Typically, student teams manage projects from fall through spring semesters—September to May—contributing 2,000–2,500 aggregate hours while simultaneously completing the final year of MBS coursework. Frequently, a subset of team members can work as summer interns to jump-start the full project prior to the fall kickoff.

The student team—in collaboration with the faculty advisor and corporate liaison—develops a project plan that details milestones, accountabilities, deliverables, and timelines. While this plan guides the team's efforts over the life of the project, it is frequently updated to reflect changing information and marketplace dynamics.

Corporate liaison

Each sponsoring organization identifies an internal champion to collaborate with the team over the life of the project. This liaison helps monitor and guide team progress, and serves as the gateway to the rest of the organization.



The team and liaison will establish a regular communications schedule (for example, weekly phone conferences) as well as short-and long-term milestones and deliverables.

In addition to solid knowledge of the project topic, the liaison should possess good communication skills, candor, and an interest in collaborating with and mentoring highly skilled, highly energetic graduate students.

KGI faculty advisors

Our interdisciplinary faculty has current research and business experience in areas such as: bioprocessing; optimization of yeast recombinant protein production; genomics; proteomics; cell-based microarray technologies; DNA amplification and analysis methods; microfluidics; molecular and computational analysis of regulatory networks; strategy and organizational development; regulatory affairs; rational design of multi-drug therapies; and structural genomics.

With a focus on applied research, the faculty's work has resulted in an extensive portfolio of issued patents.

KGI faculty have been funded by organizations such as the National Institutes of Health, National Science Foundation, The Ralph M. Parsons Foundation, the US Department of Energy, the Civilian Defense Research Foundation, Defense Advanced Research Projects Agency, Hedco Foundation, The Seaver Institute, The Whittier Foundation, and others.

Deliverables

Since the TMP is a combined educational and industry-sponsored effort, KGI and the company work together to define outcomes and deliverables for the teams.

Among its pedagogical requirements, KGI expects each team to present status-to-date reports during internal seminars in the fall and spring. In May, each team must create a comprehensive confidential written report plus a sponsor-only presentation. Additionally, each team must make a presentation to the KGI community and corporate guests.

Each sponsor will identify additional deliverables for its team. These could include data sets, laboratory results, competitive analysis, business plan creation, completion of SBIR proposals and the like.

Intellectual property

Any intellectual property created by the team during sponsorship typically remains the property of the sponsor. Should any team discovery be deemed worthy of patent protection, KGI will so advise the sponsor, and will collaborate with the organization in preparing materials.

Fees

The TMP fee is \$55,000—providing the sponsor at least the equivalent of a full time professional for a much smaller investment. The all-inclusive fee typically covers overhead, supplies and materials. Should a project incur significant equipment purchases or extensive travel, KGI will negotiate with the sponsor. KGI invoices customers for half the amount in September and half in January.

Summer internships are paid separately.

Starting a TMP in 3 Easy Steps

So...you've determined that a Team Masters Project makes business sense. To get started, complete the following:

Company name:

1. What's the title of the project? (For example, "competitive analysis of xyz technology platform")
2. In two sentences, describe the problem that needs to be solved or the opportunity that you have identified. (For example, need to transform sponsor proprietary technology into a commercial assay kit as well as explore partnering opportunities for kit production)
3. In two sentences, describe your goal for the project. (For example, to have lab data about the efficacy of a new HTS assay for a certain drug target)

TMP planning timeline

Every project lifecycle is unique, but the following timeline can aid in planning your firm's TMP.

September–December

Schedule a KGI visit to your site to discuss TMP possibilities

November

Draft a short list of possible projects and get organizational buy-in

February

Submit one page project description to KGI

March

Recruit summer intern to kick start the project

April

Review, sign and return TMP contract

May

Attend public presentations by current-year project teams

September

Attend Kickoff Day at KGI

The Team Masters Project at Keck Graduate Institute

Enhance Productivity

The Team Masters Project (TMP) at Keck Graduate Institute (KGI) provides an opportunity for your company to tackle real-life needs and help address corporate objectives without having to invest in additional permanent assets. Your productivity is enhanced because you can manage multiple projects simultaneously.

An interdisciplinary team of students—supervised by a KGI faculty member and in collaboration with your organization—delivers results on the project you identify.

Good Company 2009–2010



Biologics development capacity modeling and analysis



Orphan drug market overview



Launch support for the next generation automation product line



Protein purification processes for biotherapeutics



Economic assessment of biofuels



Business analysis of biologics and fermentation technologies



Opportunities in consumer genomics



Methodologies for wound-healing diagnostics



Methods to maximize value using contract research organizations in China and India.



Characterization of a novel single-use bioreactor system



SNP genotyping in plants utilizing a microfluidic platform



New product opportunities in rare disease therapy



Product launch strategy and market opportunity assessment

Frequently Asked Questions

What's the best kind of TMP project?

Just about any opportunity or problem can be addressed. Good project topics deal with matters that are important to the organization, but for which few resources exist. In addition, any area that benefits from an interdisciplinary approach—for example, cost and technology-justification models for prioritizing drug targets—makes an excellent TMP.

The sponsoring company identifies a liaison for the team—what qualifications should this person have?

The corporate liaison plays a crucial role in TMP success. The liaison role is much more than a “when I get time” responsibility. Ideally, team involvement should become an explicit part of the individual's job description for the duration of the project. Our most successful corporate liaisons report spending two-four hours weekly on their efforts.

Not only does the liaison help ensure that the project remains on track and that its goals continue to be relevant, but he/she serves as the gateway to the rest of the organization.

Ideally, the liaison is thoroughly knowledgeable about the project topic, has excellent communication skills, and can work successfully with bright young graduate students.

Also, the liaison should have adequate authority within your organization to make timely decisions and obtain organizational buy-in.

How much does a TMP cost? Are additional fees involved?

The TMP fee is \$55,000—or about \$27/hour for the 2,000-hour student team time investment. Historically, all costs—including a modest amount of travel, supplies, conference fees, and the like—have been covered by this sum. Should significant equipment purchases or extensive travel be involved with a project, KGI will negotiate with the sponsor.

What if we have so many projects that it would be difficult to identify just one for a team?

TMP sponsors—especially repeat clients—often face this dilemma. Here are some criteria that can be used to select an opportunity:

- Project time frame is aligned with the September to May calendar
- The project can be successfully managed from a distance
- The project requires interdisciplinary skills
- The project needs a mix of both business and scientific input
- There is an internal champion for the project who can serve as organizational liaison to the team

If we sponsor a TMP, do we get to choose the students for the team?

Since the TMP is a curricular element, final student and faculty assignments are made by the Vice President of Academic Affairs. However, it is common for companies to start the project during a summer internship, with the student intern transitioning to the project team in the fall.

Sounds great, but I don't have time to even think about a project. How can you help?

Email us a one sentence description of your top three problems, issues, and opportunities, and we will supply you with brief descriptions of how a team could support your needs.

Most of us got our PhDs years ago—what advice do you have about working with graduate students?

Here are some ideas for engaging your team members early and solidly:

- At the outset, invite the students to visit your company and learn about your business
- Understand the different reasons each student is interested in your project
- Be explicit about your expectations for matters small and large. For example, if your corporate culture is very punctual, explain that this will be important for the team's credibility, and note that you always expect them to be on time
- Encourage students to communicate “bad news” as well as “good news”
- KGI students have tremendous intellectual curiosity, so don't be shy about asking them to investigate an issue extensively

How do we begin?

Send KGI a one paragraph description of your project, including a brief summary of the current situation, and what you hope the outcome would be. See “Starting a TMP in 3 Easy Steps.”

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