2013-2016 STRATEGIC PLAN
THE TIME IS NOW:
SCALING UP TO MEET
NEW OPPORTUNITIES IN STEM
EDUCATION AND EMPLOYMENT
DEAR COLLEAGUES, FUNDERS, SUPPORTERS AND FAMILIES,

On behalf of our Board of Directors, staff and partners, we are pleased to share **Biotech Partners’ (BP) 2013-2016 Strategic Plan**. This bold and exciting plan identifies future strategies for program refinement, growth, expansion in STEM (science, technology, engineering and math) and the strengthening of our communications to ensure that we are sharing our experiences, achievements and learnings.

As we developed this roadmap for our future we had the advantage of building on twenty years of accomplishments including documented success with creating pathways to education and careers in bioscience for underserved youth from 11th grade to community college. The program includes a customized industry-focused curriculum, paid internship experiences and supportive services.

We are very proud of our achievements, including a **100% high school graduation rate, 100% college matriculation rate, and 100% placement of certificate recipients** desiring employment in biotechnology into full-time technical positions.

This Strategic Plan evolved from a process of gathering input from a wide variety of stakeholders, examining our past approaches, and making a firm decision to ramp-up to deliver even higher-quality programming in a radically shifting environment. We are grateful to everyone who took the time to participate in surveys, focus groups and interviews. We were desirous of an inclusive process and your input was invaluable.

While our fundamental mission will remain the same, armed with your feedback, best practice research and facilitated Board and staff discussions, we are firmly committed to geographic and programmatic expansion. Over the next three years, we will refine our curriculum to increase the involvement of STEM professionals in classroom education and to better leverage technology through online components; extend the Bioscience Academy to the 9th and 10th grades; and expand our reach to add another Bay Area county to our service area.

None of this can be accomplished without resources and support from our current and future partners including students, families, teachers, alumni, partners and funders. We are firmly committed to methodically building the infrastructure to support our growth and delivering an efficient response to the urgent call to address the pressing issue of increasing the pool of educated and trained youth to fill the growing number of California-based jobs in the STEM sector.

We sincerely hope we can count on you to help leverage and build the resources and support required to support our expansion plans. The time is now for BP to broaden its impact on underserved youth.

Best regards,

Caroline Kane
Executive Director

Deborah Bellush
Board President
Overview of Biotech Partners’ 2013-2016 Strategic Direction

After hiring an independent third party with strategic planning expertise and spearheading a collaborative process including Biotech Partners’ Board, staff, youth, parents, teachers, employers and funders, Biotech Partners is aligned and committed to implementing the following Strategies and supporting Goals in 2013-2016:

**Enhance Marketing & Communications**
- Increase Media Presence
- Strengthen Internal & External Communications
- Emphasize Program Impact
- Establish Alumni Database & Facilitate Involvement
- Publish a Field-Building Book or White Paper

**Revise Curriculum & Teaching Model**
- Engage Professionals in Classrooms
- Modify Curriculum to Include Technology
- Explore Creation of Fee or Subscription-Based Curriculum

**Strategy #5**

**Expand the Number of Students & Employers Served Annually**
- Explore New Counties
- Encourage Expansion to 9th & 10th Grades at Existing Schools
- Conduct an RFP Process to Select New Schools

**Strategy #4**

**Strengthen Infrastructure to Support Growth**
- Establish an Advisory Committee
- Expand & Rebrand Beyond Bayer
- Strengthen School MOUs
- Leverage Nonprofit Alliances
- Add 3 Cross-Site Positions

**Strategy #3**

**Diversify & Stabilize Funding**
- Secure a Planning Grant
- Establish a Reserve Fund
- Apply for Federal Funds
- Define & Promote Sponsorship & Naming Opportunities
- Appeal to Alumni

**Strategy #2**

**Strategy #1**
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Introduction

In 1993 a bold plan was launched by Bayer HealthCare, a bioscience market leader committed to the communities it serves, and the City of Berkeley, renowned for its leadership in civic engagement. What started as a straightforward property development agreement between two parties with mutual interests to provide employment opportunities for local disadvantaged youth has blossomed into Biotech Partners (BP), an award-winning non-profit with more than 60 corporate, foundation, government, education and health care partners working together in an innovative model for transforming the lives of underserved youth by connecting them to the world of biotechnology. BP now serves approximately 130 students annually in a school-to-career linked learning model that provides specialized science curriculum from 11th grade through community college, paid summer internships and Co-Op jobs (year-long paid job training opportunities for BP's community college students) and support services to help each student achieve success.

MISSION
To provide underserved youth with personal, academic and professional development experiences that increase participation in higher education and access to fulfilling science careers.

VISION
Youth will be transformed into prepared, confident and successful professionals who contribute to science and their communities.

CORE VALUES
• PARTNERSHIP: We collaborate effectively with our youth, schools, educators, employers and volunteers.
• ACCOUNTABILITY: We demonstrate responsibility and commitment and expect it of our youth and other partners.
• INNOVATION: We are open to change and seek to creatively improve our processes, programs and outcomes.
• PASSION: We enthusiastically approach our vital work and encourage and motivate our youth.
• OPPORTUNITY: We promote skill development and opportunities for our staff and youth to grow and excel.
• PROFESSIONALISM: We exhibit integrity, produce quality work and bring our talents to all that we do.
• COMMUNITY: We create a family environment providing tough love and support to ensure our youth succeed.

In its first 20 years Biotech Partners has educated more than 2,000 youth and made more than 1,000 placements into paid training positions with students’ earnings to-date totaling approximately $3.2 million. BP's unique model and strong impact was recognized in 2011 with the Ashoka/Changemakers national Partnering for Change competition Innovations in Life Sciences Prize for “…an innovation that promotes partnerships between scientists and science educators…”

THEORY OF CHANGE
To lead its youth, who are from populations underrepresented in science and who do not have access to STEM mentorship and opportunities, to success through inspiration, academic preparation, individualized support, paid internships and skill building that instills confidence.

The cornerstone programming that BP has created as a comprehensive pipeline of youth development is the BIOTECH ACADEMY (the Academy), the high school program in operation at Berkeley High School (BHS) and Oakland Technical High School (OTHS), and the BIOSCIENCE CAREER INSTITUTE (BCI), the community college program in operation within the Peralta Community College (PCC) District. The Academy and BCI curriculum and program components are developed and updated through periodic review by teachers, industry representatives and staff to ensure alignment with trends in biotechnology and regional workforce needs. Completion of the program leads to a Certificate of Achievement in Bioscience, leveraged to obtain relevant full-time jobs. We are extremely proud of BP's outcomes:
• 100% high school graduation
• 56% community college completion (twice the national average for community college certificate programs)
• 100% placement of certificate recipients desiring employment in bioscience in full-time technical positions, far exceeding local, regional and national averages.

BP has recently expanded its supportive services launching innovative initiatives including: ROPe (Resources, Opportunities, Preparation & Encouragement), a specialized support program targeting African American male students and their families; POP (Parent Outreach Program), providing seminars and information to help parents/guardians encourage and support
the efforts of their children to achieve academic and life success; and CASP (College Access & Support Program), a pilot initiative supporting graduates of the high school and/or community college programs who choose to pursue science degrees at four-year colleges and universities.

BP has exceeded expectations with a talented and committed staff and governance by a 15-member Board of Directors with substantial leadership experience in bioscience, education and administration. The Board receives direct input from student representatives from each partner school. In fact, in 2012, Executive Director Deborah Bellush was named one of the Most Influential Women in Bay Area Business by the San Francisco Business Times. However, BP and its corporate, foundation, government, education and health care partners recognize that THE TIME IS NOW for BP to build upon its “model that works” and scale up to meet the extraordinary opportunity to capitalize on the mounting national and global focus on STEM (Science, Technology, Engineering and Math) education and employment.

STEM is truly the buzz word in Washington and across the nation and with 20 years of demonstrated excellence BP is well-poised to be at the forefront of enhancements to science education and academic and industry partnership. The support for STEM education and career initiatives extends all the way to The White House with President Barack Obama lifting it up in his 2013 State of the Union address “announcing a new challenge to redesign America’s high schools so they better equip graduates for the demands of a high-tech economy.” To reinforce its commitment the Obama administration has committed $3.1 billion to improve STEM education nationwide with a focus on training educators, sparking students’ interest at earlier ages and promoting partnerships between high schools, colleges and employers. BP has the institutional knowledge to be a leader in the evolution of STEM education in California and beyond and THE TIME IS NOW to determine how best to expand its model and influence with the support of its funders and partners. It is in this context and with a sense of urgency that this Strategic Plan begins.
This Strategic Plan has been a long time coming for Biotech Partners. Over the past three years, the organization has been engaged in evaluating its systems and methodology, as well as codifying its processes. Now, with a foundation of strong leadership, a unique and established model, stellar outcomes, and data systems in place, BP is ready to don its planning hat and plot out a measured course for growth. BP is prepared to identify and hold itself accountable to stretch goals. Recognizing the weight of this task for the organization, BP hired an independent third party with strategic planning expertise, Walker and Associates Consulting, to facilitate the collaborative planning process which is summarized below:

The Strategic Planning Committee held a Kick-Off Meeting on November 5, 2012 and the dedicated group consisted of the following key staff and Board members along with the Walker and Associates Consulting team:

- **Deborah Bellush**, J.D., Executive Director
- **Meghan Colgan**, Program Director (former)
- **Rochelle Conner**, Operations Manager
- **Tina Etcheverry**, Ph.D., Board Member
- **Caroline Kane**, Ph.D., Board President
- **Jerry Metzker**, Development and Marketing Manager

The Assess Phase included an internal and external organizational assessment as well as an analysis of key trends and other program models. Critical inputs included:

- Board and Staff Surveys
- Core Stakeholder Focus Groups
  - BHS Academy Students
  - OTHS Academy Students
  - Academy Parents
  - Academy Teachers
  - BCI Students
- Alumni, Partner and Funder Interviews
- Marketplace Analysis
“BP really wants the kids to succeed. My daughter says ‘If I don’t get at least an 80% I have to go over the material again and make sure I understand it before my labs.’ I don’t see those expectations in her other classes.”

BP Biotech Academy Parent Strategic Planning Focus Groups
The Organizational Health Assessment provides a real-time snapshot of the organization from the viewpoint of its key constituents. This part of the process, along with the Marketplace Analysis, is critical because it helps to identify strengths, weaknesses, opportunities and threats (S.W.O.T.) that can be leveraged, improved upon, capitalized on and proactively addressed through strategic and dynamic goals for the future. Once an organization is grounded in where it is now, it becomes much easier to determine where it wants and needs to go in the future.

A few key messages emerged from the Board and staff surveys; stakeholder focus groups; and the alumni, funder and partner interviews:

- BP is well respected and there is high admiration for its programming
- The Academy and BCI have strong outcomes
- Paid, professional, skill-building internships are the major attraction to the program for students
- BP’s personal connection with and support of students and families is valued
- The Academy and BCI Program scale is currently limited
- In turn, BP’s funding is constrained and new sources of support will be needed to foster growth

Overall, BP has created a model that is desired, needed and working. Stakeholders are proud to be associated with BP.

**Board and Staff Surveys**

Both BP’s Board of Directors and staff took a reflective online survey of over 20 quantitative and qualitative questions. Although both parties were very engaged and vocal throughout the process this was an important step to allow each individual to provide one’s personal perspective and ideas and there was 100% participation. Results were overwhelmingly positive and supportive with a vast majority of respondents saying that the organization is “thriving” or “performing well” and expressing high hopes for BP’s future.
With 91% of the Board and 100% of staff saying that they are “very satisfied” or “satisfied” with their experience with BP the survey results also revealed that:

- BP is a healthy organization with an optimistic Board and staff that enjoy being part of the organization and contributing to the transformation of students’ lives
- BP is ready for growth but the organization lacks the necessary funding and plans to get there
- Board development and recruitment is required to take the organization to the next level
- Opportunity exists to strengthen relationships and communication, especially with alumni, employers and even with schools, parents and other nonprofits

Core Stakeholder Focus Groups

The focus groups with Academy students, parents and teachers and BCI students were particularly illuminating. Each focus group session was well-attended and all groups were very engaged in discussion about BP and its programming. Key overall findings included:

- The opportunity for paid, professional, skill-building internships is the major attraction to the program
- BP’s academic support and tutoring provided beyond the curriculum are extremely beneficial to helping BP youth to become “better students” overall
- The “tough love,” personal support and coaching received is highly valued, especially in the Academy
- The “classroom experience,” including class size and management, varies across sites and teachers and can be important to the students’ perception of the program and success
- More consistent and timely communication about opportunities and events would be appreciated

Key stakeholder-specific opportunities uncovered included:

- **Academy Students** expressed that their curriculum could be better differentiated from classes such as Biology and that labs could be even more challenging
- **Academy Parents** were very positive about BP’s impact on their children and want to know more about what to expect from the program as their child progresses
- **Academy Teachers** could use more support in the classroom and want to be more involved in the breadth, depth and evolution of the program specifically curriculum development, interaction with employers, the internship experience and teacher training and development
- **BCI Students** communicated the complexities of pursuing the Certificate of Achievement in Bioscience as the requirements can hinder their ability to complete an Associate’s Degree within two years or to transfer to a four-year institution on schedule since some BCI courses are not transferrable

Alumni, Funder & Partner Interviews

A representative group of alumni, funders and partners were selected to participate in one-on-one interviews to solicit in-depth feedback and ideas for improvement and growth. Across the board, these conversations revealed that BP is regarded as an innovative model with need and room to grow. Key stakeholder-specific findings from the one-on-one interviews were as follows:

- **Alumni** credit the program for their professional growth and express interest in wanting to stay connected to BP and mentor those youth coming behind them
- **Funders** are happy with BP’s results which often earns them repeat grants but awards are limited by the relatively small scale of the program
- **Partners** would love to see BP’s programs in every school and want to do more to help but recognize that the costs are high and that the schools and school districts have limited resources

“Want to finish the Certificate so that I have extra leverage in getting a job.”
It is important for today’s nonprofits to dedicate time and resources to incorporating business-like practices such as environmental scans and competitive benchmarking that can uncover trends that may impact its course; help the organization assess its value, role and position in the competitive environment; and inspire new ideas. BP competes for students, employers and resources alongside other organizations providing services that meet similar needs. Therefore, BP seeks to understand its surrounding landscape and continuously improve to remain unique and value-added.

The goal of the Marketplace Analysis was two-pronged:
- To identify future trends in biotechnology and STEM education and workforce requirements leveraging resources from reputable industry sources such as BayBio, California Biotechnology Foundation, STEMconnector, Opportunity Equation and the California STEM Learning Network; and
- To analyze BP’s competitive environment by highlighting best practices gleaned from a diverse set of nonprofit benchmark organizations (a cohort of five nonprofits from across the country serving a similar population or with related missions and programs).

Overall, the analysis affirmed the need for BP’s programming but also highlighted ways that it can be adapted to better incorporate students’ interests, more closely align to the market’s requirements and opportunities and utilize best-in-class STEM models and nonprofits with a history of growth. Key findings by topic are outlined below:

**STEM Education**
- The U.S. Department of Education-sponsored “The Nation’s Report Card: Science” publications reported that in 2009, fewer than half of the students at the 4th, 8th and 12th grade levels were proficient in science and no more than 1-2% were advanced
- In a science assessment of 8th graders conducted in 2011, California performed well below the national average and the U.S. also scored well behind other nations.

**STEM Jobs Projection**

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<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>2018 STEM Jobs</th>
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<tbody>
<tr>
<td>1</td>
<td>California</td>
<td>1,148,000</td>
</tr>
<tr>
<td>2</td>
<td>Texas</td>
<td>758,000</td>
</tr>
<tr>
<td>3</td>
<td>New York</td>
<td>477,000</td>
</tr>
<tr>
<td>4</td>
<td>Florida</td>
<td>411,000</td>
</tr>
<tr>
<td>5</td>
<td>Virginia</td>
<td>404,000</td>
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**STEM Interest**
- STEMconnector and My College Options’ 2012-2013 report on “Where are the STEM Students? What are their Career Interests? Where are the STEM Jobs?” revealed that students’ engineering and technology interests are on the rise while interest in science and mathematics is decreasing
  - The top five STEM careers of interest to students in California are Mechanical Engineering, Biology, Science, General Engineering and Game Design/Developer.

**STEM Careers**
- The 2012-2013 STEMconnector report also projected that 8.65 million STEM jobs will exist in the United States by 2018 and California leads the way with 1,148,000 jobs projected, the highest of any state
  - 47% of jobs will be in Computer and Math Science, 28% in Engineering, 12% in Life and Physical Science (where BP currently focuses), 7% in Social Science and 6% in Architecture.
  - The largest STEM occupations are technology-related
- U.S. Bureau of Labor Statistics’ 2012-13 Occupational Outlook Handbook and online job portal data shows that Certificate and Associate’s Degree jobs exist but are limited in availability, salary and career growth.
  - Most entry level biological technician jobs require or prefer a Bachelor’s degree.
The average annual salary is around $40,000, just below the U.S. average across occupations, while most STEM jobs far exceed the U.S. average

**Competitive Benchmarking**

- Best-in-class STEM and non-STEM classroom-to-career models include mentorship by industry professionals and their participation not only in curriculum development but also in class instruction
- Nonprofits with a history of successful growth have done so only with increased, significant and multiyear support from lead funders and partners including foundation grants, corporate sponsorships, naming opportunities and in-kind donations

The Marketplace Analysis elucidates that STEM is the future and education must improve and evolve so that our children learn the fundamentals of science early on, so their interest in STEM is not only sparked but maintained, and they have easy access to the latest technology and are better prepared to compete for STEM jobs. BP's programming is clearly aligned to national education and job growth goals. With long-term significant funding BP is certain to grow in reach, impact, influence and outcomes.

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**STEM Policy**

- STEM is truly the buzz word in Washington and across the country
- President Barack Obama lifted STEM up in his 2013 State of the Union address, touting the importance of STEM courses at earlier ages, high schools partnering with colleges and employers and of our high school graduates being prepared for immediate work or educational opportunities via Certificates and community college credits
  - President Obama stated: “Let’s also make sure that a high school diploma puts our kids on a path to a good job. Right now, countries like Germany focus on graduating their high school students with the equivalent of a technical degree from one of our community colleges, so that they’re ready for a job. At schools like P-Tech in Brooklyn, a collaboration between New York Public Schools, the City University of New York, and IBM, students will graduate with a high school diploma and an associate’s degree in computers or engineering.”
- The Obama administration also committed $3.1 billion to improve STEM education nationwide with a focus on training educators, sparking students’ interest at earlier ages and promoting partnerships between high schools, colleges and employers
- Several STEM bills and initiatives are brewing across the nation
  - On February 26, 2013 the House of Representatives passed a resolution creating a national STEM competition for students
  - Massachusetts House Speaker Robert A. DeLeo is proposing the creation of a new STEM Starter Academy at Bay State Community Colleges to help put students on the path to job readiness

"I didn’t expect BP’s staff to pay such attention to detail. Their commitment is amazing. The connection that my son made with his mentor was also pleasantly surprising."

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BP Biotech Academy Parent Strategic Planning Focus Groups
The following SWOT analysis helps to synthesize the implications of the key findings from the Organizational Health Assessment and the Marketplace Analysis:

**STRENGTHS**
- Innovative school-to-career linked learning model
- Attractive & enriching paid internships
- Partnerships with corporations, foundations, government, education & health care
- 20 year history
- Stellar outcomes

**WEAKNESSES**
- Small annual reach
- Slow growth constrained by tight resources
- Low alumni engagement
- Limited geographic footprint

**OPPORTUNITIES**
- Enhance curriculum to meet students’ interests & employers’ needs
- Reach students earlier in their education
- Expand program footprint beyond Berkeley High School, Oakland Technical High School & Peralta Community College District
- Increase brand awareness, improve marketing & develop new & stronger partnerships

**THREATS**
- Limited &/or diminishing funding
- Other innovative models may arise & gain prominence in the Bay Area, state & country

The Assess Phase findings and implications became the inspiration and spring board for the five overarching Strategies, and their supporting Goals and Outcomes, that will lead BP fearlessly into a period of refinement and growth.

"The job experience helps reinforce what we’re learning and alleviates financial stress."

―BP BCI Student

"BP makes sure my students are on top of their grades and wherever there is a problem, particularly in math and science, they support them through tutoring and encouragement."

―BP Biotech Academy Teacher
STRATEGY #1: DIVERSIFY & STABILIZE FUNDING

Many nonprofits face cash flow struggles as a result of a failure to diversify their funding base to include more flexible, longer-term or reliable sources of funding and to establish adequate reserves to mitigate against delayed grant payments or the unexpected loss of a major source of income. BP is no exception and over the next three years will focus on strategies to increase income from government grants and individual donors, which contributed 27% and 5% of total income respectively in 2012, and establish a minimum reserve equal to six months’ operating expenses.

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<tr>
<th>Goals</th>
<th>Outcomes</th>
<th>Completed by</th>
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<tbody>
<tr>
<td>Secure a 1 year planning grant to explore BP's expansion options.</td>
<td>An Action Plan for BP's expansion is developed and funding options are identified.</td>
<td>1st Quarter, 2014</td>
</tr>
<tr>
<td>Establish a reserve fund equal to six months' operating expenses.</td>
<td>A cushion is built to mitigate against a future cash flow bind.</td>
<td>4th Quarter, 2014</td>
</tr>
<tr>
<td>Research &amp; apply for grants from federal agencies promoting STEM education and careers.</td>
<td>Grants from Federal Agencies are increased to 20% of BP's annual budget.</td>
<td>2nd Quarter, 2014</td>
</tr>
<tr>
<td>Create and communicate a Case Statement, Sponsorship Levels, Naming Opportunities and Prospect List.</td>
<td>Sponsorships for new BP sites in expansion site counties are secured.</td>
<td>1st Quarter, 2014</td>
</tr>
<tr>
<td>Make an Annual Appeal to BP Alumni.</td>
<td>Income from individual donors is increased and Alumni are engaged in fundraising.</td>
<td>4th Quarter, 2013</td>
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**STRATEGY #2: STRENGTHEN INFRASTRUCTURE TO SUPPORT GROWTH**

Failure to invest in a robust infrastructure can jeopardize an organization’s ability to fulfill its mission. Yet, many nonprofits routinely put off investments in technology enhancement, staff development and facility maintenance/improvement in an effort to keep indirect costs to a minimum and spend most of the money they raise on direct services. BP is in the enviable position of deriving the bulk of its indirect support from Bayer HealthCare in the form of subsidized rent, utilities, and office equipment. However, a small centralized staff develops, delivers, supports and evaluates programs operating at Berkeley High School, Oakland Technical High School and within the Peralta Community College District. As BP contemplates expansion to Contra Costa and San Mateo Counties and beyond, it must consider options for strengthening its infrastructure to ensure that the quality of services is not diminished.

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<tr>
<td>Establish an Advisory Committee to include industry experts, legislators, educators, &amp; corporate &amp; foundation leaders.</td>
<td>A group of connected experts advise BP on research and industry trends and advocate for policies and resources to support BP’s programs.</td>
<td>1st Quarter, 2014</td>
</tr>
<tr>
<td>Use the Bayer-City of Berkeley Development Agreement model as a means to expand and rebrand the organization beyond Bayer.</td>
<td>BP’s brand is further differentiated as an independent identity positioned to attract additional funders and partners.</td>
<td>4th Quarter, 2014</td>
</tr>
<tr>
<td>Strengthen Memorandums of Understanding to increase support and commitment to the Biotech Partners career technical education (CTE) linked learning model.</td>
<td>Strengthened school-based support and communications.</td>
<td>4th Quarter, 2014</td>
</tr>
<tr>
<td>Leverage strategic alliances with other youth oriented non-profits (YMCA, Community College Districts, etc.).</td>
<td>Additional management and operations that free BP’s staff to develop opportunities to expand to new school districts.</td>
<td>1st Quarter, 2015</td>
</tr>
<tr>
<td>Add three new positions to work cross-site: Program Coordinator, Evaluation &amp; Special Projects Manager, and a Development &amp; Marketing Associate.</td>
<td>Expanded staff will be able to support growth.</td>
<td>1st Quarter, 2015</td>
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STRATEGY #3: EXPAND THE NUMBER OF STUDENTS & EMPLOYERS SERVED ANNUALLY

In response to the increased demand for a skilled labor force to fill STEM jobs in California, over the next three years, BP will increase the number of students and employers served annually. Strategies include: extending BP’s services to students in the 9th and 10th grades at BHS and OTHS; adding new high schools and a community college in Contra Costa County and/or San Mateo County; developing online curriculum that can supplement and/or live beyond BP school sites; and offering BP classes to community college students who did not complete BP coursework in high school. BP will also ramp up its outreach to industry to create additional internships in Alameda, Contra Costa and San Mateo Counties as the internship experience is critical to grabbing students’ attention, solidifying classroom learning and developing students’ skills.

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<th>Completed by</th>
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<tr>
<td>Conduct research to explore potential new sites in Alameda, Contra Costa, San Mateo and San Francisco Counties.</td>
<td>The case for outreach and expansion to areas with high industry presence and schools with the interest and capacity to partner with BP is made. Research findings are acted upon leading to measured growth.</td>
<td>3rd Quarter, 2014</td>
</tr>
<tr>
<td>Encourage leaders at existing high schools to expand BP’s programs to the 9th and 10th grades.</td>
<td>Students are exposed to STEM education and career options at a younger age increasing demand for BP’s program.</td>
<td>3rd Quarter, 2015</td>
</tr>
<tr>
<td>Issue an RFP to selected schools in Oakland Unified School District, Richmond Unified School District, San Francisco Unified School District and Contra Costa College; develop the RFP evaluation protocol; and complete the selection process.</td>
<td>BP programs are established at 1-2 new high schools and one community college.</td>
<td>3rd Quarter, 2015</td>
</tr>
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STRATEGY #4: REVISE CURRICULUM & TEACHING MODEL

To better prepare BP students for the rising number of technology-related STEM occupations, BP must increase the involvement of STEM professionals in the design and teaching of the BP curriculum. BP must also employ cutting edge strategies to make the information more accessible and interesting to a greater number of students.

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<tbody>
<tr>
<td>Engage more STEM professionals in classroom instruction.</td>
<td>Enhanced classroom learning experience promotes higher levels of industry engagement in BP programs.</td>
<td>1st Quarter, 2014</td>
</tr>
<tr>
<td>Modify the BP Curriculum to include technology components.</td>
<td>BP Curriculum is refined to meet current and future industry trends.</td>
<td>3rd Quarter, 2014</td>
</tr>
<tr>
<td>Conduct research and develop fee or subscription-based curriculum and training modules.</td>
<td>Curriculum and training modules are developed and integrated in BP classroom training and/or used as supplemental training options.</td>
<td>1st Quarter, 2016</td>
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**STRATEGY #5: ENHANCE MARKETING & COMMUNICATIONS**

For some, BP is still a well-kept secret. Many California-based school districts are struggling with how best to incorporate STEM education in their curriculum. This creates an opportunity for BP to enhance its communication with all stakeholders and market its educational and assessment tools.

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<tr>
<th>Goals</th>
<th>Outcomes</th>
<th>Completed by</th>
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</thead>
<tbody>
<tr>
<td>Increase BP’s print, TV and Social Media Presence.</td>
<td>A consistent and established media identity exists for BP.</td>
<td>2nd Quarter, 2014</td>
</tr>
<tr>
<td>Strengthen internal and external communications with all stakeholders.</td>
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<td>BP is further established as a leader in the field and documents its organizational learnings.</td>
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BP is at the epicenter of STEM job growth in the Bay Area and has the established public-private model to be a leader in the field. BP’s paid internship serves as the carrot to draw students in and their interest in science grows as they experience the hands-on curriculum and other enrichment activities. Why shouldn’t BP be the next organization that President Obama cites in his 2014 State of the Union Address as a national example of excellence and innovation? With expanded support from existing and new partners and funders, BP can and will strengthen its infrastructure; revise its curriculum and teaching model; enhance its marketing and communications; expand the number of students and employers it serves; and diversify and stabilize its funding. BP is the right organization at the right place at the right time for growth and the 2013-2016 outlook is bright!

“We’ll reward schools that develop new partnerships with colleges and employers, and create classes that focus on science, technology, engineering, and math—the skills today’s employers are looking for to fill jobs right now and in the future.”

President Barack Obama
2013 State of the Union Address
February 12, 2013
Appendices

A. Biotech Partners
   Board, Staff & Strategic Planning Committee

B. Biotech Partners
   2013-2016 Strategies, Goals & Responsible Parties

C. Biotech Partners
   Fact Sheet

D. Biotech Partners
   Theory of Change
A. Biotech Partners Board, Staff & Strategic Planning Committee

Special thanks to everyone who took time out of their busy schedules to assist in the development of this Strategic Plan, including BP's Board, Staff, Teachers, Parents, Students, Funders and Partner Agencies.

**BOARD OF DIRECTORS**

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**Joaquin Rivera, MS**  
Professor, Skyline College  
Trustee, Alameda County Board of Education

**Dick Thomas**  
Berkeley Site Manager (retired)  
Bayer HealthCare

**STRATEGIC PLANNING COMMITTEE**

Deborah Bellush  
Meghan Colgan  
Rochelle Conner  
Tina Etchevery  
Caroline Kane  
Jerry Metzker

**STAFF**

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Executive Director

**Rochelle Conner**  
Operations Manager

**Jerry Metzker**  
Development and Marketing Manager

**Marithess Rico**  
Biotech Academy Program Manager

**Rylan Rosario**  
Program Coordinator

**WALKER AND ASSOCIATES CONSULTING, LLC**

**Constance Walker**  
President

**Jeannine Walker**  
Vice President, Marketing & Communications

**Duane Poe**  
Senior Associate

**Jim Bracken**  
Video Producer
STRATEGY #1: DIVERSIFY & STABILIZE FUNDING

Many nonprofits face cash flow struggles as a result of a failure to diversify their funding base to include more flexible, longer-term or reliable sources of funding and to establish adequate reserves to mitigate against delayed grant payments or the unexpected loss of a major source of income. BP is no exception and over the next three years will focus on strategies to increase income from government grants and individual donors, which contributed 27% and 5% of total income respectively in 2012, and establish a minimum reserve equal to six months’ operating expenses.

<table>
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<tr>
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<th>Responsible Parties</th>
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<tbody>
<tr>
<td>Secure a 1 year planning grant to explore BP’s expansion options.</td>
<td>An Action Plan for BP’s expansion is developed and funding options are identified.</td>
<td>Development Committee &amp; Development and Marketing Manager</td>
<td>1st Quarter, 2014</td>
</tr>
<tr>
<td>Establish a reserve fund equal to six months’ operating expenses.</td>
<td>A cushion is built to mitigate against a future cash flow bind.</td>
<td>Board Development and Finance Committees, Executive Director, &amp; Development and Marketing Manager</td>
<td>4th Quarter, 2014</td>
</tr>
<tr>
<td>Research &amp; apply for grants from federal agencies promoting STEM education and careers.</td>
<td>Grants from Federal Agencies are increased to 20% of BP’s annual budget.</td>
<td>Development Committee, Development and Marketing Manager &amp; Consultants</td>
<td>2nd Quarter, 2014</td>
</tr>
<tr>
<td>Create and communicate a Case Statement, Sponsorship Levels, Naming Opportunities and Prospect List.</td>
<td>Sponsorships for new BP sites in expansion site counties are secured.</td>
<td>Development and Marketing Manager &amp; Consultants</td>
<td>1st Quarter, 2014</td>
</tr>
<tr>
<td>Make an Annual Appeal to BP Alumni.</td>
<td>Income from individual donors is increased and Alumni are engaged in fundraising.</td>
<td>Development and Marketing Manager &amp; Board President</td>
<td>4th Quarter, 2013</td>
</tr>
</tbody>
</table>
### STRATEGY #2: STRENGTHEN INFRASTRUCTURE TO SUPPORT GROWTH

Failure to invest in a robust infrastructure can jeopardize an organization’s ability to fulfill its mission. Yet, many nonprofits routinely put off investments in technology enhancement, staff development and facility maintenance/improvement in an effort to keep indirect costs to a minimum and spend most of the money they raise on direct services. BP is in the enviable position of deriving the bulk of its indirect support from Bayer HealthCare in the form of subsidized rent, utilities, and office equipment. However, a small centralized staff develops, delivers, supports and evaluates programs operating at Berkeley High School, Oakland Technical High School and within the Peralta Community College District. As BP contemplates expansion to Contra Costa and San Mateo Counties and beyond, it must consider options for strengthening its infrastructure to ensure that the quality of services is not diminished.

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<tr>
<td>Establish an Advisory Committee to include industry experts, legislators, educators, &amp; corporate &amp; foundation leaders.</td>
<td>A group of connected experts advise BP on research and industry trends and advocate for policies and resources to support BP’s programs.</td>
<td>Board of Directors</td>
<td>1st Quarter, 2014</td>
</tr>
<tr>
<td>Use the Bayer-City of Berkeley Development Agreement model as a means to expand and rebrand the organization beyond Bayer.</td>
<td>BP’s brand is further differentiated as an independent identity positioned to attract additional funders and partners.</td>
<td>Board of Directors &amp; Executive Director</td>
<td>4th Quarter, 2014</td>
</tr>
<tr>
<td>Strengthen Memorandums of Understanding to increase support and commitment to the Biotech Partners career technical education (CTE) linked learning model.</td>
<td>Strengthened school-based support and communications.</td>
<td>Executive Director &amp; Biotech Academy Program Manager</td>
<td>4th Quarter, 2014</td>
</tr>
<tr>
<td>Leverage strategic alliances with other youth oriented non-profits (YMCA, Community College Districts, etc.).</td>
<td>Additional management and operations that free BP’s staff to develop opportunities to expand to new school districts.</td>
<td>Executive Director</td>
<td>1st Quarter, 2015</td>
</tr>
<tr>
<td>Add three new positions to work cross-site: Program Coordinator, Evaluation &amp; Special Projects Manager, and a Development &amp; Marketing Associate.</td>
<td>Expanded staff will be able to support growth.</td>
<td>Executive Director, Operations Manager, &amp; Development and Marketing Manager</td>
<td>1st Quarter, 2015</td>
</tr>
</tbody>
</table>
**Strategy #3: Expand the Number of Students & Employers Served Annually**

In response to the increased demand for a skilled labor force to fill STEM jobs in California, over the next three years, BP will increase the number of students and employers served annually. Strategies include: extending BP’s services to students in the 9th and 10th grades at BHS and OTHS; adding new high schools and a community college in Contra Costa County and/or San Mateo County; developing online curriculum that can supplement and/or live beyond BP school sites; and offering BP classes to community college students who did not complete BP coursework in high school. BP will also ramp up its outreach to industry to create additional internships in Alameda, Contra Costa and San Mateo Counties as the internship experience is critical to grabbing students’ attention, solidifying classroom learning and developing students’ skills.

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<tr>
<td>Conduct research to explore potential new sites in Alameda, Contra Costa, San Mateo and San Francisco Counties.</td>
<td>The case for outreach and expansion to areas with high industry presence and schools with the interest and capacity to partner with BP is made. Research findings are acted upon leading to measured growth.</td>
<td>Consultant</td>
<td>3rd Quarter, 2014</td>
</tr>
<tr>
<td>Encourage leaders at existing high schools to expand BP’s programs to the 9th and 10th grades.</td>
<td>Students are exposed to STEM education and career options at a younger age increasing demand for BP’s program.</td>
<td>Board Program Committee, Deputy Director, &amp; Program Director</td>
<td>3rd Quarter, 2015</td>
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<tr>
<td>Issue an RFP to selected schools in Oakland Unified School District, Richmond Unified School District, San Francisco Unified School District and Contra Costa College; develop the RFP evaluation protocol; and complete the selection process.</td>
<td>BP programs are established at 1-2 new high schools and one community college.</td>
<td>Board Program Committee, Deputy Director, &amp; Ad-hoc Industry Partners</td>
<td>3rd Quarter, 2015</td>
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**Strategy #4: Revise Curriculum & Teaching Model**

To better prepare BP students for the rising number of technology-related STEM occupations, BP must increase the involvement of STEM professionals in the design and teaching of the BP curriculum. BP must also employ cutting edge strategies to make the information more accessible and interesting to a greater number of students.

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<td>Engage more STEM professionals in classroom instruction.</td>
<td>Enhanced classroom learning experience promotes higher levels of industry engagement in BP programs.</td>
<td>Board Program Committee, Biotech Academy Program Manager, &amp; Ad-hoc Industry Experts</td>
<td>1st Quarter, 2014</td>
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<td>Modify the BP Curriculum to include technology components.</td>
<td>BP Curriculum is refined to meet current and future industry trends.</td>
<td>Board Program Committee &amp; Ad-hoc Industry Experts</td>
<td>3rd Quarter, 2014</td>
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<td>Conduct research and develop fee or subscription-based curriculum and training modules.</td>
<td>Curriculum and training modules are developed and integrated in BP classroom training and/or used as supplemental training options.</td>
<td>Board Program Committee, Deputy Director, Program Director, &amp; Consultant</td>
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**STRATEGY #5: ENHANCE MARKETING & COMMUNICATIONS**

For some, BP is still a well-kept secret. Many California-based school districts are struggling with how best to incorporate STEM education in their curriculum. This creates an opportunity for BP to enhance its communication with all stakeholders and market its educational and assessment tools.

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<td>Increase BP’s print, TV and Social Media Presence.</td>
<td>A consistent and established media identity exists for BP.</td>
<td>Development and Marketing Manager &amp; Development Committee</td>
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FACT SHEET

Our Mission
To provide underserved youth with personal, academic and professional development experiences that increase participation in higher education and access to fulfilling science careers.

History
- An independent non-profit organization since 1993
- Originally established as part of a property development agreement between Bayer HealthCare and the City of Berkeley
- Award-winning organization that has been featured in The New York Times, The San Francisco Chronicle and on NBC Nightly News; named 2009 Biotechnology Educator by BayBio, the 500-company member organization serving Northern California’s life science industry; recipient of the Innovations in Life Sciences Prize in the Ashoka/Changemakers national Partnering for Change Competition

Curriculum & Program Components
- A specialized science and technology curriculum from 11th grade through community college
- Paid summer internships for Biotech Academy high school students (~$1,400 in earnings)
- Paid co-op jobs for Bioscience Career Institute community college participants (~$10,000/year in earnings)
- Community college component graduates receive a Certificate of Achievement in Bioscience
- No-fee support services to help each student achieve success (scholarships, tutoring, clothing and transportation stipends, personal and career counseling, etc.); job placement and continuing support for graduates
- Periodic review by industry representatives, instructors and staff guides curriculum and program development to ensure that the training is aligned with trends in bioscience and regional workforce development

Academic Partners
- Berkeley Unified School District; Berkeley High School (since 1992)
- Oakland Unified School District (since 1996); Oakland Technical High School (since 2008)
- Peralta Community College District (since 1995)

Success Rates
- Over 2,000 students educated; more than 1,000 internship and co-op training position placements resulting in student earnings of approximately $3,200,000 to-date
- 100% high school graduation rate
- 100% of BP high school graduates pursue post secondary education, as opposed to ~51% of California public high school graduates
- More than 56% completion rate for community college component (more than twice the national average for completion of community college certificate programs)
- 100% placement of certificate recipients in full-time technical positions

Organizational Management & Oversight
- Managed by a five-person staff that provides support to 120-130 students annually
- Governed by a 15-member board of directors with leadership experience in bioscience, secondary and post-secondary education, government and administration, with student representatives from each participating school
Biotech Academy—Junior Year

- Biotech classes 1 & 2
- Preparing for a career in science
- Developing lab skills
- Job readiness-resume writing, interviewing skills
- Free support services—tutoring, career counseling
- Improved GPA
- STEM Career Awareness Day

8-Week Paid Summer Internship ($1,400)

Train at a biotech, science or healthcare institution

Seminars: Time Management, Goal Setting, Financial Management, Dress for Success
Guest Speaker presentations
Poster Exhibition & Celebration

Biotech Academy—Senior Year

- Biotech classes 3 & 4
- More advanced biotech studies
- Student Board member opportunities, guest speakers, study groups, tutoring
- College application & prep support services
- Graduation Ceremony

Bioscience Career Institute Community College Program

- Peralta Community College District
- Paid job training-$10,000/year
- Scholarships & Stipends
- Free tutoring support
- Job preparedness & life skills seminars
- Certificate of Achievement
- Job placement assistance

4-year college or university

“BP gave me a leg up by getting me the internship at Bayer. I think that’s one of the major reasons why I got accepted in the Biological Sciences program at UC Davis.”

—Tinzen Paldron
Biotech Academy Graduate

Entry-level technical positions

- Employment $35-45k/year
- Profit sharing / 401K
- Medical & dental benefits

Continued education
Transfer to 4-year college
Company-paid tuition

Community College 2 years Complete pre-requisites

Transfer to 4-year college or university
**D. Biotech Partners Theory of Change**

**How Biotech Partners Transforms Lives**

**Recruit Youth**
- Inspires youth
  - From groups typically underrepresented in the field of science and technology
  - From public high schools near a science employment hub
  - Who lack access to STEM mentorship and opportunities

**Academic Preparation**
- Provides academic preparation and individualized support
  - Academic and technical training
  - Personalized problem solving and Psychosocial counseling
  - Tutoring
  - Financial support

**Paid Internships**
- Places youth in paid internship
  - Mentoring
  - Soft skills
  - Professional standards
  - Positions requiring responsibility and independence
  - Engaged in current technology

**Instills confidence**
- Sense of belonging
- Increased self-esteem
- Shift to growth mindset
- Academic and intellectual self-efficacy
- Professional Identity

**Opportunity**
- High school graduation
- Community College Bioscience Certificate
- Marketable skills for employment
- Post-secondary degree

**Success**
- High school graduation
- Community College Bioscience Certificate
- Marketable skills for employment
- Post-secondary degree

"BP gave me a leg up by getting me the internship at Bayer. I think that's one of the major reasons why I got accepted in the Biological Sciences program at UC Davis."
—Tinzen Paldron

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- Community College Program
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  - Employment $35-45k/year
  - Profit sharing / 401K
  - Medical & dental benefits
  - Continued education
  - Transfer to 4-year college
  - Company-paid tuition

**High School Graduation**
- Community College Completion
- Pre-requisites
- Transfer to 4-year college or university

**Company**
- Continued education
- Transfer to 4-year college
- Company-paid tuition

**Internships**
- 8-Week Paid Summer Internship ($1,400)
- Train at a biotech, science or healthcare institution
  - Seminars: Time Management, Goal Setting, Financial Management, Dress for Success
  - Guest Speaker presentations
  - Poster Exhibition & Celebration