BioVoyage Institute, Inc
P.O. Box 94
Largo, FL 33779
Email: curricula@biovoyage.org
Url: www.biovoyage.org

A Nonprofit Biotechnology, Education, Research & Development Organizatio

COVER LETTER

(Date)

(Grantmaker details)

RE: (Name of Grant)

The BioVoyage Institute, Inc., Florida is pleased to submit this grant proposal for your perusal, consideration and funding. We look forward to your positive support of our on-going mission to provide biotechnology (bioscience) education to those who need it most, namely, educationally and economically disadvantaged students.

Bioscience is any of the branches of natural science dealing with the structure and behavior of living organisms. Biotechnology is the use of microorganisms, such as bacteria or yeasts, or biological substances, such as enzymes, to perform specific, medical, agricultural, industrial or manufacturing processes. Applications include the production of certain drugs, synthetic hormones, and bulk foodstuffs as well as the bioconversion of organic waste and the use of genetically altered bacteria in the cleanup of oil spills. The bioscience and biotechnology industries are growing at an alarming rate yet there are not enough trained professionals for the number of employment opportunities that are currently available and expected to be available in the future. The Biotechnology Education Program we are in the process of developing, and would like to expand with your support, will offer advantages such as 1) the flexibility to be implemented anywhere, 2) well-rounded content of curricula materials and 3) expertise of BioVoyage Institute personnel and committed industry professionals external to the institute.

Our organization requests funding in the amount of $(amount) to help expand the Biotechnology Education Program. Over a five year period, this program will offer educational curricula in the field of biotechnology to students from Kindergarten through University. It is likewise carefully crafted for use by school teachers, home-schooling educators, museums, libraries and other members of our community.

With your support, BioVoyage's Biotechnology Education Program will include student textbooks, corresponding teachers' manuals, training seminars for teachers, supplemental instructional educational materials; a mobile laboratory facility enabling lab access to schools, homes, educational institutes, workshops; and biotechnology

educational support from a cadre of professionals employed in the biotechnology field.

The staff at BioVoyage have more than 60 years combined experience in the field of biotechnology, publishing, education, grant administration, program development, technical writing, manuscript editing and new product research and development, which enabled us to identify a great need for biotechnology education to train individuals for present and future career opportunities. In an ever-growing industry of biotechnology, pharmaceuticals, vaccines, medicines, education, foods, health and genetic engineering, BioVoyage's timely introduction of educational materials are particularly needed in economically and educationally disadvantaged schools. In 2002, we advanced the research and development of a biotechnology education curriculum, which will be implemented in all schools. The curriculum is introduced at the kindergarten level, thus introducing biotechnology concepts to students at a very early age. The goal is to educate all students and ensure that the demand for qualified biotechnology/bioscience employees and educators are met. We believe that our greatest achievement is having crafted biotechnology as a higher order critical thinking content area most suited for higher education and graduate students, for hands-on use at the kindergarten level.

Since it was founded in 1998, BioVoyage has worked, and continues to work, towards providing high quality and innovative biotechnology education (combining bioscience with reading, math, writing, research, culture, social studies, etc., to name a few) to students and teachers of poorly funded schools and other individuals within our community. Our Biotechnology Education Program is easily applicable for use with school districts of varying socioeconomic status, state educational agencies; and national and international communities. The aim of our educational program is to provide a highly trained, literate and skilful workforce for the present and future in the USA and to restore confidence and leadership in our technological endeavours.

Thank you for your time and consideration of our proposal. We look forward to your anticipated support in our efforts to provide biotechnology education for all.

Sincerely,

(Chairman of Board name and signature)

EXPLORING NEW AVENUES IN EDUCATION & TECHNOLOGY FOR LIFE

COVER SHEET

Date of Application:

Name of Organization: Bio Voyage Institute, Inc. (BioVoyage)

Purpose of Grant: BioVoyage will use funds to expand its Biotechnology Education Program, which will provide biotechnology education, support and resources to students and teachers from Kindergarten to University, particularly to those students and teachers in educationally and economically disadvantaged schools and those who are not currently being taught biotechnology, as well as other individuals, on a local, national and international scale, in an effort to bridge the gap between highly-financed and underprivileged education institutions, increase the public's knowledge and awareness of biotechnology and provide a definite workforce of highly educated biotechnology professionals for employment within the USA.

Address of Organization: Bio Voyage Institute, Inc.
7360 Ulmerton Road,
Unit 26E,
Largo, Florida 33771

Mailing Address: BioVoyage Institute, Inc
P.O. Box 94
Largo, FL 33779

Telephone Number: 727-557-6633

Fax Number: 727-530-4675

Chair Person: Dr. Joy Scott, PhD

Co-Chair: Ms. Naydon Sutherland

Contact Person and Title: Joshua Ken Davidberg, PhD, Executive Director

Is your organization an IRS 501(c)(3) not-for-profit?: Yes

Grant Request: $(amount) for Project Support

Total Organizational Budget for last fiscal year (2006/7): $ 2,188,904.64

Budget Period: 1st January 2006 – 1st January 2007

Total Project Budget: 2,188,904.64 (Organizational Operating Budget)
182,198.00 (1 After School Program Budget*)
859,600.00 (1 Elementary School Budget*)

859,600.00	(1 Middle School Budget*)
859,600.00	(1 High School Budget*)
1,267,426.00	(1 Office Budget Q1)
1,214,278.00	(1 Office Budget Q2)
1,255,760.00	(1 Office Budget Q3)
1,296,469.00	(1 Office Budget Q4)
1,381,844.00	(1 Office Budget Q5)
1,639,666.50	(Mobile Lab – Per year per Mobile Lab)
9,564.00	(1 Teacher Training Budget*)
416,000.00	(Online Virtual BioScience Classroom)
20,481,000.00	(Textbook/CD/DVD Budget)
16,728,484.20	(Textbook/CD/DVD Translation Budget)

Total: **$50,499,394.34**

* It is not possible to estimate the number of services we will offer in the coming project budget period. We have included one of each for demonstration purposes. We will require 10 mobile labs to start with, more as we progress. International teacher training will cost more.

Dates covered by project budget: 1st March 2008 – 28th February 2009

Project name: Biotechnology Education Program

NARRATIVE

Problem to be addressed

BioVoyage requests this grant in order to provide innovative and higher quality education in the field of biotechnology in an effort to provide the growing scientific industries with highly trained and educated individuals within the United States, instead of paying for the importation of trained foreigners to occupy these vacancies, which continues to drain our economy.

Our organization aims to do this by expanding our Biotechnology Education Program, which will provide biotechnology education, support and resources for students and teachers from Kindergarten to University, adults, and home-schooled students and educators, particularly those from poorly funded educational institutes or those who are not currently receiving biotechnology education. Our efforts will bridge the knowledge gap between well-financed schools and underprivileged schools and communities.

The growing biotechnology industry is facing a severe shortage of highly skilled and literate professionals in the USA due to the fact that biotechnological subjects are not generally taught in the majority of educational institutes in this country. In 2002, a newspaper article stated that about 96% of the nation's universities, colleges, high schools, middle and elementary schools had little to no existing biotechnology curricula.

The biotechnology industry has seen, and continues to see, tremendous growth:

The American biotechnology industry has surpassed pharmaceutical companies for the third straight year as the primary source of new medicines, and biotech revenue jumped nearly 16 percent to a record $50.7 billion in 2005. *Source: Ernst & Young LLP, 2006*

The biotech industry has mushroomed since 1992, with U.S. health-care biotech revenues increasing from $8 billion in 1992 to $39 billion in 2003. *Source: Biotechnology Industry Organization (BIO,) 2006*

Employment figures in the biotechnology industry have also continued to grow:

In 2004, the national figures for Biotechnology Employment were 1,386,862. *Source:* *http://www.biotechwork.org/Labor-Market-Statistics.aspx?vid=1&sid=0&yearFilter=2004&viewMode=Table&region=National*

These figures increased to 1,410,654 in 2005. *Source:* *http://www.biotechwork.org/Labor-Market-Statistics.aspx?vid=1&sid=0&yearFilter=2005&viewMode=Table&region=National*

In the USA…'biotechnology employment will grow by 1.6% annually through 2014, with many subsectors projected to experience even faster rates of growth. During this period, overall job growth in the private sector is expected to reach just 1.4% annually'. *Source: http://www.angeloueconomics.com/biotechnology.html*

In 2005, employment figures for the biotechnology industry were 1,410,654, as shown above. But the number of completed biotechnology-related programs from nationwide educational institutions of all levels was only 406,180. *Source: http://www.biotechwork.org/Labor-Market-Statistics.aspx?vid=3&sid=5&yearFilter=&viewMode=Table&region=National*

Between 2000 and 2010, biotechnology related industries are expected to add over 3 million new jobs to the economy in the USA alone. *Source: http://216.239.59.104/search?q=cache:UYEm_mKE6wcJ:www.bls.gov/opub/ooq/2002/fall/art03.pdf+biotechnology+employment+projections+usa&hl=en&ct=clnk&cd=3*

These figures are compelling and demand that we develop and train biotechnology (scientific) professionals for the increasingly severe shortages in the biotechnology industries.

Our Biotechnology Education Program will help provide those professionals, especially at the technologist and technician levels, where the greatest needs are, by targeting teachers and students from Kindergarten through University, particularly those from poorly funded education institutes or those who are not currently receiving biotechnology education. We will also target other individuals from within the communities we plan to serve.

From an economic point of view, the benefits and advantages of our program are as follows:

Business\Career Opportunities
Increased Standard of Living
Minimize Crime and Poverty
Scientifically Trained Personnel
Scientific Industry Establishment
Development of New and Revolutionary Products
Greater Income\Salaries
Greater Influx of Foreign Monies
Retention of Trained Personnel

Our program will have a positive impact in the following arenas:

Vaccines
Agriculture
Foods
Environment
Medical
Pharmaceutical
Funding

Marine Biology
Biological Industry
…and many more

Program Goals and Objectives

Our goals are as follows:

- To educate 50,000 teacher-leaders (especially kindergarten, elementary, middle school and high school) and 500,000 students through education, hands-on workshops that introduce labs and teacher-tested activities to bring biotechnology into the classroom.
- To increase the number of K-12 school students pursuing biotechnology studies through education, exposure to laboratory experiments, and to link schools and students with biotechnology industry mentors.
- To raise general public awareness, understanding, and appreciation of biotechnology through an interactive Web site that provides reliable information and perspectives on biotechnology.
- Host educational forums that focus on timely biotechnology topics for key government officials, policy leaders, members of the academic community, industry representatives and the press.

We will achieve our goals through the following nine objectives:

Objective 1: *Develop biotechnology, bioscience and biomedicine curricula*

Objective 2: *Educate the public at large about biotechnology*

Objective 3: *Establish relationships with scientific and non-scientific organizations, work closely with educational institutions, researchers, hospitals, medical and non-medical practitioners, and policy makers*

Objective 4: *Host conferences, seminars, and workshops for teachers, students and administrators*

Objective 5: *Assist in the management or support of education programs*

Objective 6: *Provide a forum for persons to share their insights and theories, to present papers and discoveries, to give demonstrations among colleagues, fellows and the public and to publish research findings*

Objective 7: *Through education, to bring awareness to the community on new biotechnology, bioscience and biomedicine advances and achievements*

Objective 8: *Promote awareness about the recognition, treatment and prevention of diseases through education, and*

Objective 9: *Provide training (skilled & unskilled) to generate employment*

Methodology

To achieve our objectives, we will use the funding to expand and promote our Biotechnology Education Program, lease buildings for our operations and support the various activities and developments detailed below.

For each objective, the methodology that will be used is as follows.

Objective 1: *Develop biotechnology, bioscience and biomedicine curricula*

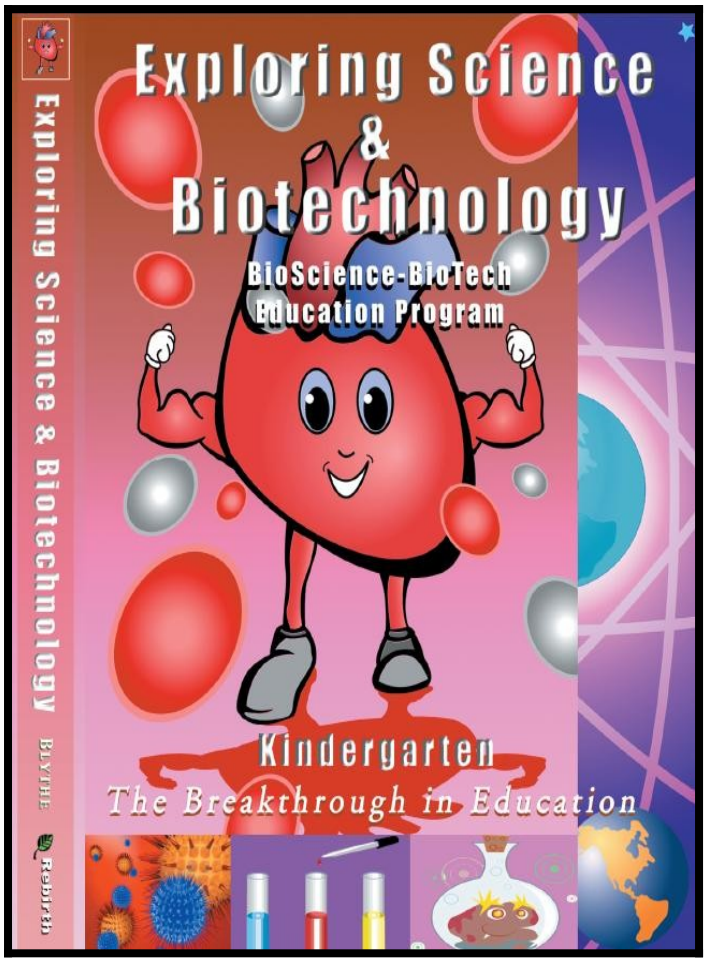
From research, we discovered that even though other educators had attempted biotechnology education, very little and meaningful integrated (Math, English, Social Science, Writing, Reading & Research) textbook materials existed.

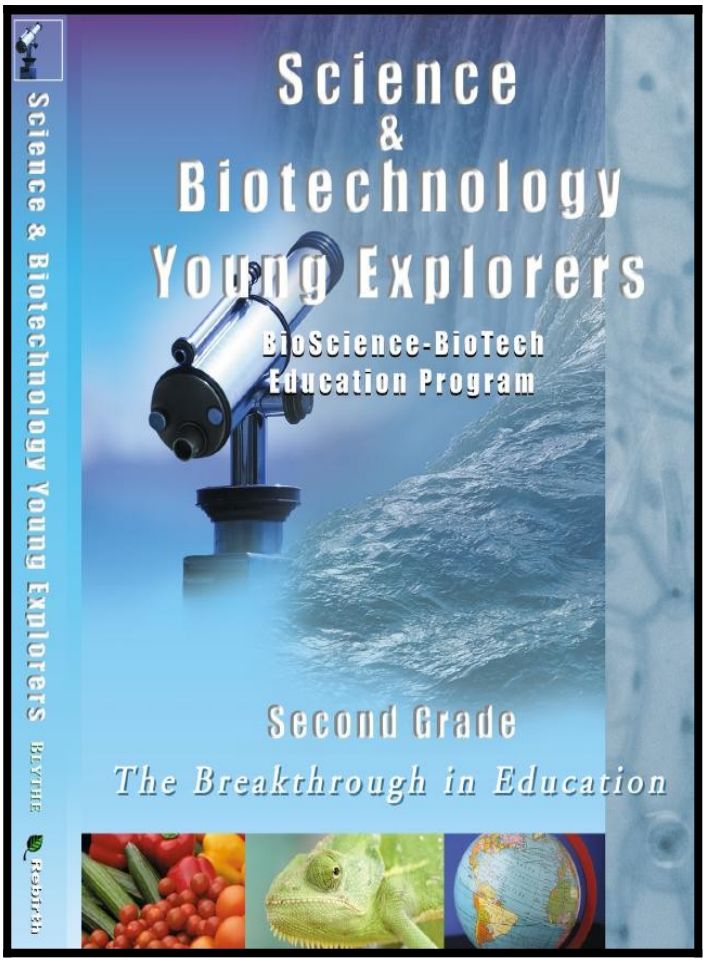
Our objective is to develop a fully comprehensive biotechnology, bioscience and biomedicine curricula for students from Kindergarten to University, particularly those from poorly funded educational institutes or those who are not currently receiving biotechnology education.

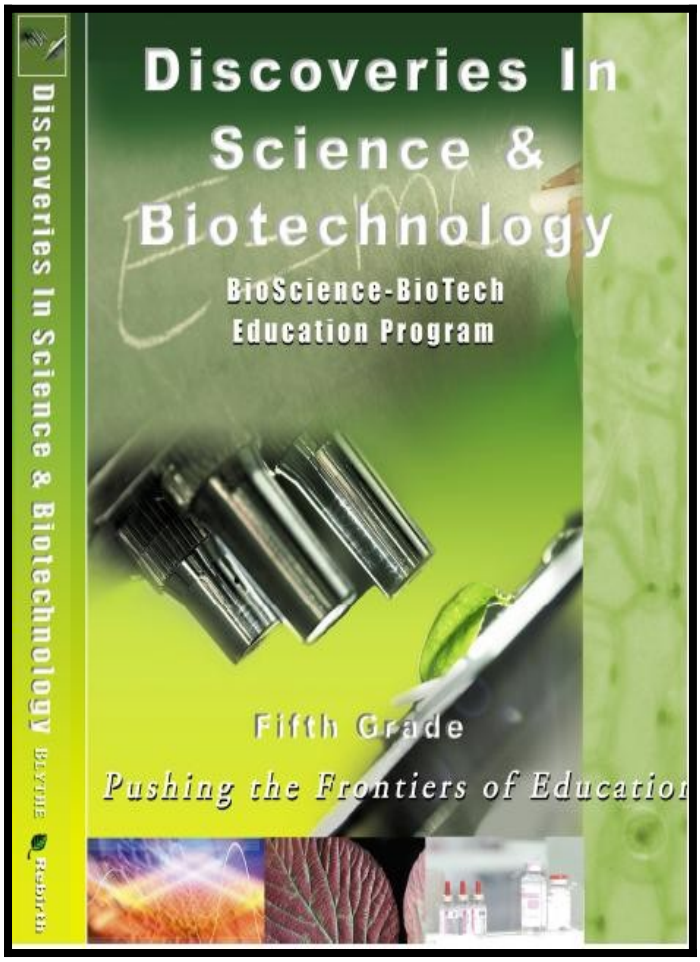
Our aim is to develop curricula that integrate science, math, reading, writing and the other major studies from a biotechnology point of view to demonstrate the impact that biotechnology has on all facets of life and to provide the individual with a well-rounded education. Learning about biotechnology must also be fun for those involved, which is why our textbooks have been specifically designed to deliver PhD material in a way that the target student can understand, absorb and utilize.

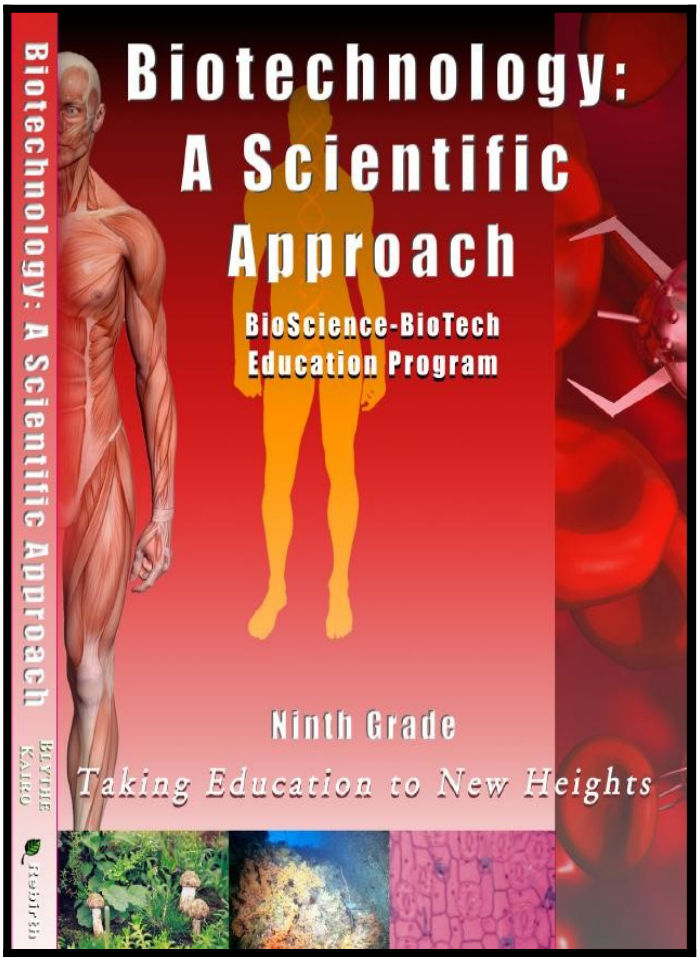
In order to continue development, your support will enable us to hire professional curriculum writers that will work with our own educational and biotechnology professionals to compile biotechnology, bioscience and biomedicine textbooks (will also be available as CDs and DVDs) to National and Florida standards, that can also be adapted to meet different educational standards as and when required. Alongside the student textbooks, teachers' manuals will also be developed to support the learning process. We will also use funds to promote these textbooks to educational institutes and home schooling educators.

The following pictures are book covers we have developed for the textbooks from Kindergarten, 2nd, 5th and 9th Grades. They give a good idea of the textbooks' physical appeal to the age group they are designed for.


Exploring Science & Biotechnology
BioScience-BioTech Education Program
Kindergarten
The Breakthrough in Education
Exploring Science & Biotechnology
BLYTHE
Rebirth


Science & Biotechnology Young Explorers
BioScience-BioTech Education Program
Second Grade
The Breakthrough in Education
Science & Biotechnology Young Explorers
BLYTHE
Rebirth


Discoveries In Science & Biotechnology
BioScience-BioTech Education Program
Fifth Grade
Pushing the Frontiers of Educatio
Discoveries In Science & Biotechnology
BLYTHE
Rebirth


Biotechnology: A Scientific Approach
BioScience-BioTech Education Program
Ninth Grade
Taking Education to New Heights
Biotechnology: A Scientific Approach
BLYTHE
KAIRO
Rebirth

The following are synopses of the textbook contents for three grade ranges: 1 through 5, 6 through 8 and 9 through 12. The contents will be broken down into subtopics and sections to cover each subject fully.

Grades 1 through 5 Textbook Contents

Chapter 1: The Interdependence of Organisms, Humans, Animals, and Environment
Chapter 2: The Nature of Matter & Biotechnology
Chapter 3: Energy, Its Effects, & Conversion, Generation of energy
Chapter 4: Earth and Space & Biotechnology
Chapter 5: Nature of Science and Enzymes
Chapter 6: Understanding Biotechnology
Chapter 7: Processes of Life & Genetic Diversity
Chapter 8: Biotechnology of Living Beings
Chapter 9: Genetics of Living Beings and their Interaction Environment
Chapter 10: Plant Biotechnology
Chapter 11: Animal Biotechnology
Chapter 12: How Living Things Interact with Their Environments
Chapter 13: The Nature of Science & Biotechnology
Chapter 14: Genetically Modified Products

Grades 6 through 8 Textbook Contents

Chapter 1: Introduction to Biotechnology
Chapter 2: The Nature of Science & Biotechnology
Chapter 3: The Nature of Matter & Biotechnology Applications
Chapter 4: Energy, Its Effects & Biotechnology Applications
Chapter 5: Concepts of Cell Biology and Biochemistry.
Chapter 6: Biotechnology, Genetics & Processes of Life
Chapter 7: Life Processes and Metabolism.
Chapter 8: Concepts of Genetics and Molecular Biology
Chapter 9: Concepts of Microbiology and Immunology
Chapter 10: Genetic Engineering (rDNA technology)
Chapter 11: Plant Biotechnology
Chapter 12: Food & Agricultural Biotechnology
Chapter 13: Animal Biotechnology
Chapter 14: Genetically Modified Organisms
Chapter 15: Tools of Biotechnology

Grades 9 through 12 Textbook Contents

Chapter 1: Philosophy of Biotechnology
Chapter 2: Microbial Biotechnology
Chapter 3: Medical Biotechnology and Human Genetics
Chapter 4: Plant Biotechnology
Chapter 5: Animal Biotechnology
Chapter 6: Food and Agricultural Biotechnology
Chapter 7: Environmental Biotechnology
Chapter 8: Space Biotechnology
Chapter 9: Genetically Modified Organisms (GMOs)

BioVoyage is sensitive to the blind, visually impaired and learning disabled, and as such, our materials (textbooks, CDs and DVDs) are made available to 'Make the World a More Educated Readable Place in Bioscience'. We have therefore researched the costs of translating our textbooks, CDs and DVDs into Braille. We have also begun to identify individuals skilled in translating text from English to Spanish, French, variations of Chinese, German, Arabic and Swahili, to name a few, who will aid us in the translation of our textbooks, CDs and DVDs.

BioVoyage is likewise sensitive to the needs of highly gifted children, that is, children who have the potential to advance academically far beyond their peers. We recognize that not all teachers are equipped with the knowledge and skills to recognize and nurture advanced intellectual ability, particularly among primary school age children. As such, we have identified a successful American program that will assist us with teacher professional development as it relates to appropriate use of BioVoyage textbooks.

It is imperative to include practical, hands-on exercises in the biotechnology curricula as these increase the effectiveness of the learning process. When we discussed this issue, we noted that there are many educational institutes, especially home schooling environments, that don't have access to a laboratory at all or, if they do, they don't have sufficient resources to carry out the required experiments.

In order to provide a comprehensive biotechnology education program to all educational institutions who wish it, we adopted a mobile laboratory facility that can be relocated as and when required. This is an especially viable solution for schools (home, public, private, charter, etc.) who cannot afford lab facilities with their current funding and personnel.

Your support will help us further develop and construct the mobile lab to suitable standards.

It is imperative, and of most importance, to begin printing the textbooks and start getting them into the hands of those who need them as soon as possible. This objective is our initial priority.

The textbooks for students, manuals for teachers and the mobile lab facility will provide us with the tools we need to offer a fully comprehensive biotechnology education program, which will lead to a production of highly educated individuals (workforce) suitable for future employment within the scientific industries.

Objective 2: Educate the public at large about biotechnology

It is imperative that we educate the general public about the ramifications and ever-increasing impact of biotechnology, its products and effects on our lives, societies, foods and health. In this way, they will embrace the understandings, the various activities, the reasons behind them and the results of such activities.

We plan to accomplish the above through seminars, workshops, literature, awareness programs, presentations and other such activities, which our staff will implement.

Your support will help us develop and implement these awareness programs, which will give the public a sense of security and confidence in the work of the biotechnology industry and ourselves as educators and help them understand the value of a career in the industry.

Objective 3: Establish relationships with scientific and non-scientific organizations, work closely with educational institutions, researchers, hospitals, medical and non-medical practitioners, and policy makers

Our aim is to increase awareness of the value of biotechnology and the importance of offering such education to students who will ultimately contribute to economic growth and increased standard of living.

We will build relationships by showing our curricula materials through presentations and discussing our Biotechnology Education Program in general and how it will provide the trained scientific professionals we need for our ever-growing and expanding society.

The results of building these relationships and working closely with these institutions is the realisation that to achieve the education of many more people in the field of biotechnology and produce a highly trained workforce of scientific and literate professionals requires new educational methodologies, practices and principles, a theme that is apparent in our textbooks.

The result of this will be an increase in awareness of the importance of educating more individuals in a different manner to provide a highly trained work force for the USA's growing biotechnology industry.

Objective 4: Host conferences, seminars, and workshops for teachers, students and administrators

We plan to run such activities in an effort to promote our educational services and support but also to make teachers, students and administrators aware of the importance of the growing biotechnology evolution and how it plays a part in our everyday lives and will continue to do so.

Emphasis will be placed on the employment opportunities that biotechnology creates and the many facets of our lives that the industry plays an important part in, such as food, new technologies, medicines, health, transportation, security, new products and vaccines.

These conferences, seminars and workshops will be conducted by our organization's professionals. The result will be people's increased knowledge of biotechnology and the need for more trained professionals in the field. Your support will allow our staff to offer such activities.

Objective 5: Assist in the management or support of education programs

We have had much interest in our Biotechnology Education Program from educational institutes around the country as well as abroad. They also expressed an interest in us supplying trained bioscience and laboratory teachers to aid in the learning process. Many wish us to provide ongoing training and to set up their laboratory to compliment the textbooks.

This is the type of support that we will provide to all educational institutes that wish to offer and teach our Biotechnology Education Program. With your support, our staff will be able to offer their skills to this end.

Objective 6: Provide a forum for persons to share their insights and theories, to present papers and discoveries, to give demonstrations among colleagues, fellows and the public and to publish research findings

We are in the process of developing an online virtual bioscience classroom (website) that will be linked to various educational institutions, libraries, museums, etc. This will be open to the public, where they will be encouraged to share their discoveries and insights. Such current discoveries will be available on our site to the public, members, students, etc. Students and teachers will have access to information that is contained in our textbooks. Our online teachers will be individuals in research and the higher education arena.

This virtual classroom will act as a meeting place for the general public, students, teachers, researchers, industry specialists and ourselves. It will be a place to share information, discuss trends and publish details of discoveries and research findings.

With your support, this virtual classroom will be a key part of our Biotechnology Education Program, enabling us to reach many privileged and unprivileged persons at once.

Objective 7: Through education, to bring awareness to the community on new biotechnology, bioscience and biomedicine advances and achievements

With this objective, our aim is to ensure that what we teach is the latest in biotechnology, bioscience and biomedicine. As new developments in the biotechnology, bioscience and biomedicine world emerge, we will make sure that students, teachers and the general public are made aware of them by including them in new issues of our textbooks, lab experiments that reflect the new developments, if possible, and posting details in our online virtual bioscience classroom.

The virtual classroom itself will be connected to research centers and universities so that when a discovery or advancement is made, the virtual classroom will give details.

Objective 8: Promote awareness about the recognition, treatment and prevention of diseases through education

In all our educational activities we will ensure individuals are aware of diseases that are relevant to biotechnology, bioscience and biomedicine.

Our education encourages people to think about their lives from a biotechnology, bioscience and biomedicine point of view. In this way, as they learn, they will start to change their life style and behaviour in accordance with what they've learned. A crude example is, once students have learned how germs are transmitted, they will start washing their hands in addition to other activities that prevent the spread of germs.

Objective 9: Provide training (skilled & unskilled) to generate employment

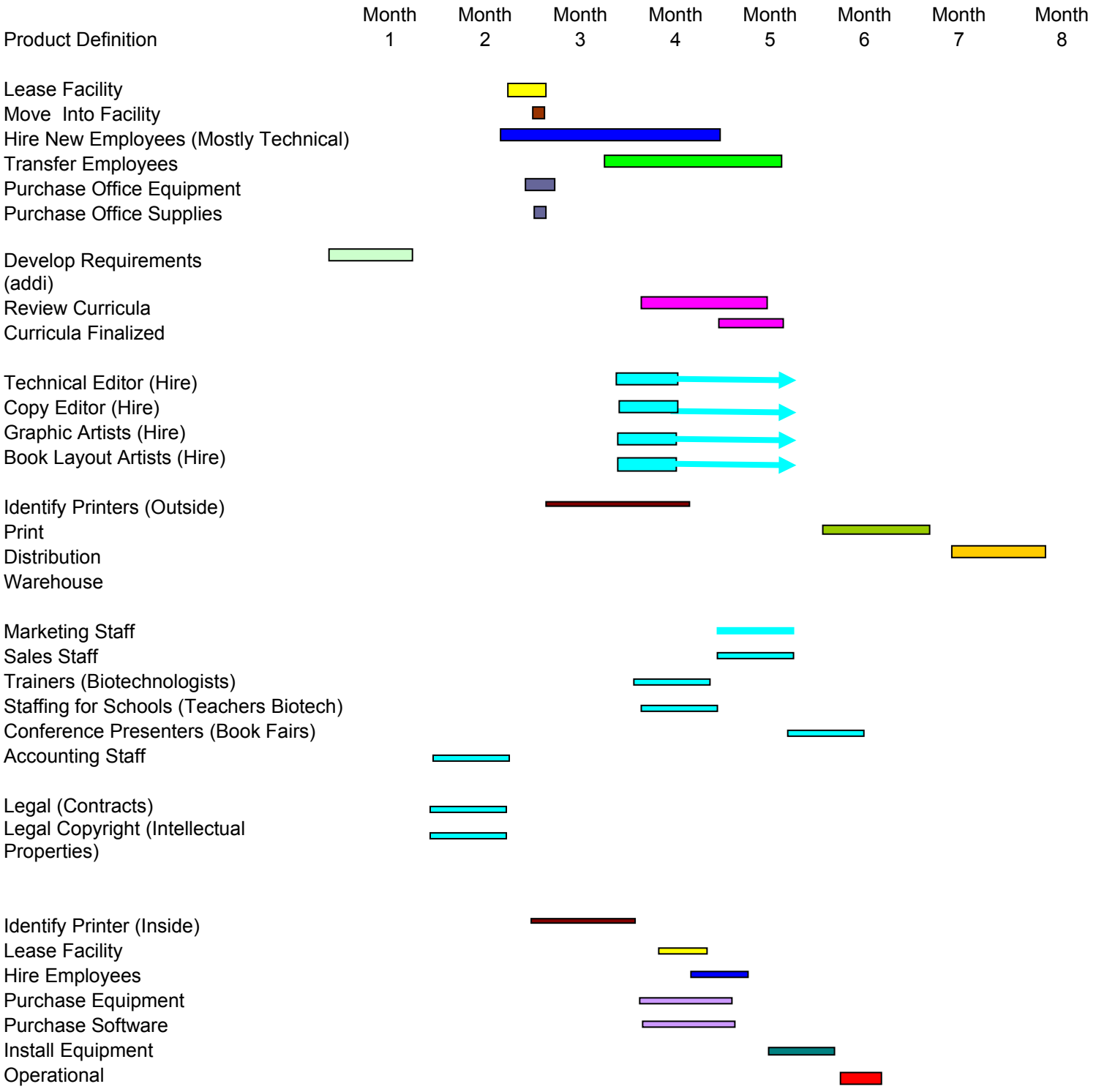
Our educational activities and resources will ensure that those who learn from them will obtain an invaluable knowledge base that can become the stepping stone to a career within the scientific industry.

Our ultimate goal is to help provide a highly skilled work force of biotechnology professionals from within the USA that can become employed within the industry. Our Biotechnology Education Program will provide training from Kindergarten to University levels in an effort to develop these highly skilled individuals and ensure sufficient resources for the future of the biotechnology industry.

We will maintain the above activities beyond your grant through the sale of our textbooks and the Biotechnology Education Program. Of course, we realize that we will need additional support, therefore, we plan to apply for repeat funding where possible and research and apply for new funding from all avenues, including foundations and state, federal and government grantmakers.

The following is a timeline of project activities, starting from when we obtain funding.

Product\Operation
Time Line


Month 1
Month 2
Month 3
Month 4
Month 5
Month 6
Month 7
Month 8
Product Definition
Lease Facility
Move Into Facility
Hire New Employees (Mostly Technical)
Transfer Employees
Purchase Office Equipment
Purchase Office Supplies
Develop Requirements (addi)
Review Curricula
Curricula Finalized
Technical Editor (Hire)
Copy Editor (Hire)
Graphic Artists (Hire)
Book Layout Artists (Hire)
Identify Printers (Outside)
Print
Distribution
Warehouse
Marketing Staff
Sales Staff
Trainers (Biotechnologists)
Staffing for Schools (Teachers Biotech)
Conference Presenters (Book Fairs)
Accounting Staff
Legal (Contracts)
Legal Copyright (Intellectual Properties)
Identify Printer (Inside)
Lease Facility
Hire Employees
Purchase Equipment
Purchase Software
Install Equipment
Operational

Evaluation

The evaluation process is an essential element of our activities and programs as it enables us to determine the effectiveness of our efforts. We will monitor and evaluate the progress and effectiveness of our objectives in the following ways.

Objective 1: *Develop biotechnology, bioscience and biomedicine curricula*

Consultation with and data collection from educational and curriculum professionals and biotechnology leaders will allow us to ensure we include relevant and timely information within our curriculum materials. Presenting our materials to such individuals will allow us to evaluate the content and logical progression of the information within our curricula to ensure it is designed for optimal learning and contains information relevant to today's biotechnology industry and advancements.

When the curricula is in use by educational institutions, the teachers, administrators, and ourselves have a chance to assess the effectiveness of the materials and laboratory exercises by encouraging students (and teachers, in the case of Teachers' Manuals) to fill in the evaluation section of our textbooks. By evaluating the students in this way, we will gain an insight into the students' understanding of each section of the curricula, which will allow us to determine the effectiveness of the content and design of the textbooks and activities. We will modify these elements as needed.

Objective 2: *Educate the public at large about biotechnology*

Again, consulting with the above individuals will ensure we are educating the public on information relevant to today's biotechnology gains. Discussing the effectiveness of our efforts with the public themselves will give us a good indication of our progress, the public's opinion of us and the biotechnology industry itself. We will modify our efforts accordingly.

Objective 3: *Establish relationships with scientific and non-scientific organizations, work closely with educational institutions, researchers, hospitals, medical and non-medical practitioners, and policy makers*

In evaluating this objective, we will look for the level of interest and involvement shown by each of these institutions. If they do not show the level of interest we anticipated, we will try to develop our relationship with them and demonstrate the importance of our efforts and their involvement in such efforts. Our activities are not dependent on their support but it will help us greatly in achieving our goals.

Objective 4: *Host conferences, seminars, and workshops for teachers, students and administrators*

We will discuss the effectiveness of our efforts in this objective with the teachers, students and administrators and modify our efforts accordingly.

Objective 5: *Assist in the management or support of education programs*

Management and support of our education programs cannot be effective unless that management or support is evaluated from the point of view of those involved. Providing bioscience professionals and helping educational institutions set up their

laboratory is the kind of support that we have been asked for and we will obviously evaluate the effectiveness of that support. We will ensure that the laboratories are set up to a suitable standard and that the bioscience professionals are of a suitable nature to provide assistance. If our support is not of a suitable standard, we will do our utmost to improve that support as and when it is needed.

Objective 6: *Provide a forum for persons to share their insights and theories, to present papers and discoveries, to give demonstrations among colleagues, fellows and the public and to publish research findings*

We will evaluate the effectiveness of our online virtual bioscience classroom through discussion with those who utilize it. This will be via online forms, surveys and the opportunity to comment on any aspect of our virtual classroom. For it to operate effectively, the virtual classroom must meet the needs and wants of those who use it and as such our main method of evaluation will be via the users. We will constantly update the virtual online classroom and modify it as required.

Objective 7: *Through education, to bring awareness to the community on new biotechnology, bioscience and biomedicine advances and achievements*

We will ensure the information we relate to the public and all those who benefit from our activities is of relevance to the biotechnology industry and released in a timely manner. Discussing such issues with biotech professionals will enable us to do this so that individuals are constantly updated with new and exciting breakthroughs and developments. We will modify our methodology in this respect accordingly.

Objective 8: *Promote awareness about the recognition, treatment and prevention of diseases through education*

Discussing what individuals have learned through our education in this respect will allow us to determine the value and effectiveness of our methods and we will adjust those methods accordingly, ensuring we meet the needs of those individuals involved. We will also ensure the information we provide is accurate and timely through consultations with relevant professionals in each field.

Objective 9: *Provide training (skilled & unskilled) to generate employment*

By analyzing employment requirements and the skills necessary to perform within the biotechnology industry and consulting with industry professionals, we will ensure our education is relevant and useful. We will update our methods according to industry developments and changes.

Evaluation of Project

The complex nature of this proposal requires both formative and summative evaluations and needs quantitative and qualitative measurements.

This evaluation is structured around two questions. The first focuses on the actual accomplishment of project activities, “Did we do what we said we were going to

do?" In answering this first question, we will document the completion of project tasks.

The second question involves the impact the project activities have had on the students and teachers. In other words, "What difference did the project make?".

Description of the Evaluation

The evaluation outlines a comprehensive design to look at the impact the BioVoyage Educational Program has on the participants (Students\Teachers), the effectiveness on different grade levels, and the implications of the program for generalizability and replication. The design of the evaluation is dynamic and is intended to provide formative information data that will be useful for decision-making as the project unfolds. Regular meetings with the project evaluators (teachers) and periodic updates on data trends will be used in updating the textbooks. All instruments identified for use in the evaluation have been selected because of their reliability and validity and because they will help us measure students' progress against rigorous standards.

Evaluation Design for Goals and Objectives

The Evaluation Table gives an overview of the key instruments used in the study of effectiveness and summarizes the full evaluation design for each goal. Within each goal, specific and measurable objectives have been identified and matched with expected outcomes and indicators of success. The focus of the goals on the effectiveness of the implementation and this is where student, teachers, communities impact data are key. The measures of student achievement for the effectiveness study are more rigorous. For the effectiveness study, we will calculate a composite student achievement score for reading, math, and science using data from student's standardized test scores, work samples and portfolio reviews, and grades in each area. The use of composite score provides a more comprehensive assessment of student's actual achievement than a single measure or test score.

Objectives	Expected Outcomes	Indicators of Success
Develop biotechnology, bioscience and biomedicine curricula	Production and development of: - Textbooks - CDs and DVDs - Mobile Laboratory - Translation of curricula into Braille, Spanish, French, German, Chinese, Swahili and Arabic.	Availability of textbooks, CDs and DVDs in English and other languages, including Braille upon request. Availability of Mobile Lab facility to enhance learning.
Educate the public at large about biotechnology	Development and implementation of: - Workshops - Seminars	General public's knowledge of biotechnology industry, developments and

	- Literature - Awareness Programs - Presentations	ramifications will be increased in addition to public confidence and support.
Establish relationships with scientific and non-scientific organizations, work closely with educational institutions, researchers, hospitals, medical and non-medical practitioners, and policy makers	Presentation of our curricula and Biotechnology Education Program and discussions with these institutions on the importance of biotechnology, bioscience and biomedicine education to develop work force.	Increased awareness of importance of our curricula and Biotechnology Education Program and increased support from these institutions.
Host conferences, seminars, and workshops for teachers, students and administrators	Offer opportunity for teachers, students and administrators to learn about our Biotechnology Education Program and the importance of creating a work force for the biotechnology industry.	Educational institutions choosing to purchase our Biotechnology Education Program and/or asking us for support. Increased awareness of biotechnology industry and ramifications in our lives.
Assist in the management or support of education programs	Provide support in the form of trained bioscience and laboratory teachers, on-going training and setting up of laboratories to suitable standards.	Consistently high standard of resources in educational institutions that were previously poorly funded and/or under-staffed/resourced.
Provide a forum for persons to share their insights and theories, to present papers and discoveries, to give demonstrations among colleagues, fellows and the public and to publish research findings	Develop and implement an online virtual bioscience classroom and a peer-reviewed BioVoyage professional journal	Increased knowledge and awareness of the biotechnology industry, developments and achievements, a place for all to discuss and disseminate knowledge relating to Biotechnology as a science appropriate from kindergarten through higher education.
Through education, to bring awareness to the community on new biotechnology, bioscience and biomedicine advances and achievements	New editions of textbooks, lab experiments reflecting new developments, posting details on the online virtual bioscience classroom.	Increased awareness of developments and advances in biotechnology, bioscience and biomedicine. Discussions with individuals.
Promote awareness about the recognition, treatment and prevention of diseases through education	Educate through curricula, online virtual bioscience classroom, laboratory demonstrations and discussions.	Increased awareness of diseases, how they spread and how spread can be prevented.
Provide training (skilled &	Development and	Increase in numbers of

unskilled) to generate employment	implementation of all activities, resources and support.	qualified biotechnology professionals entering the biotechnology industry.

BUDGET

The following organizational operating budget and proposed budgets are to be met by securing grants from private foundations and state, federal and government grantmakers.

Organizational Operating Budget Fiscal Year 2006-2007

Staff	Amount
Office Staff	
Executive Director (full-time @ $85,000 per year)	85,000.00
Secretary (full-time @ $45,000 per year)	45,000.00
Fringe Benefits (full-time staff @34% of total salaries & wages)	44,200.00
Payroll Taxes (Secretary & Director @ 0.0804 x total salaries & wages)	10,452.00
Total Office Staff	184,652.00
Curriculum Developer Staff	
Director of Project	145,000.00
Curriculum Writers @$125,000 each per year; 4 writers	500,000.00
Curriculum Editors @ $120,000 each per year; 3 editors	360,000.00
Lab Technicians @$65,000 each per year; 2 personnel	130,000.00
Fringe Benefits (9 full-time Staff @ 34% total salaries & wages)	336,600.00
Payroll Taxes (9 full-time staff @0.0804 X total salaries & wages)	79,596.00
Contract Writer Scientist	57,200.00
Contract Editor Scientist	19,760.00
Total Research Staff	1,565,420.00
Total Salaries, Benefits, and Taxes	**1,628,156.00**
Auto Expenses	
Staff Travel & Entertainment	45,000.00
Auto Expenses	
Reimbursement for personal vehicle use	3,400.00
Total Travel	**48,400.00**
Other Operating Expenses	
Utilities	10,368.00
Trash removal	3,110.00
Telephone	1,941.00
Legal Fees	21,600.00
Accounting Fees	16,200.00
Liability Insurance	11,880.00
Moving Expenses	8,618.00
Consultants (scientific research and lab equipment)	32,400.00
Fundraising Program, Grant Writing	74,000.00
Web Development	25,000.00
Internet Fees	1,331.64
Office Expenses	4,500.00
Postage and Delivery	1,100.00
Repairs	6500.00
Office Rental ($3500 per month)	42,000.00
Miscellaneous Cleaning Supplies	7,000.00
Laboratory Expenses:	
Purchase of Books	2,700.00
Professional Dues and Subscriptions (Staff)	3,500.00
Lab Supplies	45,000.00

Chemicals	6,000.00
Tools	600.00
Furniture, Equipment	187,000.00
Total Other Operating Expenses	**512,348.64**

SUMMARY	
Total Salaries, Benefits, and Taxes	1,628,156.00
Total Travel	48,400.00
Total Other Operating Expenses	512,348.64
Total Current Budget	**2,188,904.64**

Proposed After School Program Budget

Staff	**Amount**
Office Staff	
Director (full-time @ $85,000 per year), Shared	42,500.00
Secretary (full-time @ $55,000 per year), Shared	27,500.00
Fringe Benefits (full-time staff @34% of total salaries & wages)	23,800.00
Payroll Taxes (Staff @ 0.0804 x total salaries & wages)	5,628.00
Total Office Staff	**99,428.00**
Evening Program:	
Flyers-5000	600.00
Promotion	5,500.00
Curriculum Development	7,500.00
Binding of the books	220.00
Copying of the books	350.00
Curriculum Implementation	5,500.00
Advertisement (Newspapers)	1,700.00
Textbooks, References	5,000.00
Teachers (one teacher per 15 students): 4@$8500	34,000.00
Lab Supplies	2,500.00
Office Supplies	500.00
Computers (shared with summer school)	10,000.00
Computer Supplies	3,500.00
Field Trip (Say 2)	800.00
Professional Dues and Subscriptions (Staff)	600.00
Web Development	3,500.00
Internet Fees/Maintenance	1,000.00
Total Lab Operating Expenses	**82,770.00**
Grand Total	**182,198.00**

Proposed Elementary School Budget (the budgets for middle and high schools are almost identical)

Staff	Amount
Curriculum Developers	
Director of Project	82,000.00
Curriculum Writers @$85,000x2	170,000.00
Curriculum Editors @ $85,000	85,000.00
Graphic Artist @$75000	75,000.00
Instructors @75,000	75,000.00
Lab Technician @$65,000 per year;	65,000.00
Total Staff	552,000.00
Other Operating Expenses	
Software	25,000.00
Office Supplies	3,100.00
Laboratory Expenses:	
Lab Supplies	17,000.00
Lab equipment\glassware, etc	250,000.00
Chemicals	6,000.00
Tools	1,500.00
Furniture	5,000.00
Total Other Operating Expenses	**307,600.00**
Grand Total	**859,600.00**

Proposed Office Budget

	Q1 ($)	Q2 ($)	Q3 ($)	Q4 ($)	Q5 ($)
Wages\Benefits (Scientists)	175,000	175,000	175,000	175,000	175,000
Wages\Benefits (Staff)	68,200	68,200	68,200	68,200	109,802
Equipment	450,600	450,600	450,600	450,600	450,600
Software	32,000	6,000	6,000	6,000	6,000
Accountant	10,000	10,000	10,000	10,000	20,150
Audit	15,000	15,000	20,000	20,000	20,000
Legal Services	12,855	12,855	12,855	12,855	16,250
Patents	25,000	5,000	5,000	5,000	5,000
Copyright and Trademark	25,000	10,000	10,000	10,000	10,000
Production	97,515	108,242	144,724	181,533	209,068
Office Space	20,000	20,000	20,000	20,000	20,000
Supplies	3,750	3,750	3,750	3,750	3,750
Repairs	15,000	15,000	15,000	15,000	15,000
Entertainment	3,000	3,000	3,000	3,000	4,110
Graphic Designs	32,000	32,000	32,000	32,000	32,000
ISBN & Bar Codes	731	731	731	731	820
Utilities	2,550	2,550	2,550	2,550	3,137
Telephone	2,325	2,325	2,325	2,325	3,232
Travel	22,000	22,000	22,000	22,000	22,000

Professional Memberships	600	600	600	600	600
Conference\Workshops	900	900	900	900	900
Marketing	45,000	45,000	45,000	45,000	45,000
Writing	65,000	65,000	65,000	65,000	65,000
Editing	27,000	27,000	27,000	27,000	27,000
Lab\Experiments	33,000	33,000	33,000	33,000	33,000
Licensing	6,500	6,500	6,500	6,500	6,500
Contracting	15,000	15,000	15,000	15,000	15,000
Library books	3,800	925	925	925	925
Misc	25,600	25,600	25,600	29,500	29,500
Liability Insurance	32,500	32,500	32,500	32,500	32,500
Total Expenses	**1,267,426**	**1,214,278**	**1,255,760**	**1,296,469**	**1,381,844**
Grand Total For Funding Period					**6,415,777**

Proposed Mobile Lab Budget (we will require 10 mobile labs to start with)

Staffing	Amount
Office Staff	
Director (full-time @ $85,000 per year)	85,000.00
Secretary (full-time @ $55,000 per year), Shared	13,750.00
Lab Technicians (full time @ $65,000 per year x2)	130,000.00
Fringe Benefits (full-time staff @34% of total salaries & wages)	77,775.00
Payroll Taxes (Staff @ 0.0804 x total salaries & wages)	18,391.50
Total Office Staff	324,916.50
Supplies, Equipment, Tools, etc.	
Freightliner XB 755R Chassis. 31000# GVWR. 252" WB or similar	145,000.00
Lab equipment	700,000.00
Glassware	13,000.00
Tools	6,000.00
Lab Supplies	18,000.00
Furniture	9,500.00
Textbooks, Reference Books	3,000.00
Internet Service ($250.00 per month)	3,000.00
Computers, Laptops ($800x10)	8,000.00
Printers ($275x2)	550.00
Misc	13,200.00

Total Lab Operating Expenses	919,250.00
Other Expenses	
Travel & Gas	132,000.00
Vehicle Repairs	36,000.00
Lodging, Foods, etc	90,000.00
Retrofit Bus Electrical, Plumbing, Insulating, etc	65,000.00
Parking	15,000.00
Insurance, License, etc	7,500.00
Misc	50,000.00
Total Other Expenses	395,500.00
Grand Total	**1,639,666.50**

Proposed Teacher Training Budget (training of teachers beyond a 50 mile radius, of which we have received requests, may cost more)

Staff	**Amount**
Office Staff	
Presenter (x2)	1,500.00
Total Office Staff	**1,500.00**
Teacher's Training Program:	
Flyers-100	125.00
Develop curriculum	2,500.00
Implement curriculum (see above)	600.00
Copy and bound curriculum (100x30 pages)	900.00
Refreshments	200.00
Overhead projector	250.00
Office Supplies	100.00
Overhead slides	39.00
Computer Supplies	350.00
Web Development	300.00
Internet Fees/Maintenance	200.00
Discretionary Expenses	2,500.00
Total Lab Operating Expenses	**8,064.00**
Grand Total	**9,564.00**

Proposed Online Virtual Bioscience Classroom Budget:

	Amount
Server	25,000.00
Software	60,000.00
Support Personnel, 2 @ $65,000 each	130,000.00
Site Development	150,000.00
Internet Connection @ $500/mo	6000.00
Computers, 3 @ $2,200 each	6600.00
Licensing Fees @ $1,500/mo	18,000.00
Offsite backup system @ $500/mo	6000.00
Misc. @ $1200/mo	14,400.00
Total	**416,000.00**

Proposed Textbooks/CDs and DVDs Budget:

Item	Amount
Printing, 1 textbook @ $12/copy: 26 textbooks, 50,000 copies of each	15,600,000.00
Storage, $500/mo	6000.00
Shipping and Handling @ $0.75/copy, 26 textbooks, 50,000 copies of each	975,000.00
CD Production @ $1.25/copy, 26 textbooks, 50,000 copies of each	1,625,000.00
DVD Production @ $1.75/copy, 26 textbooks, 50,000 copies of each	2,275,000.00
Total	**20,481,000.00**

Proposed Textbooks, CDs and DVDs Translation Budget (It is often difficult to translate scientific English to other languages, hence the costs)

Language Translation Budget

Staff	Amount
Director $75,000 per year	75,000
Secretary $48,000 per year	48,000
Fringe Benefits (full-time staff @34% of total salaries & wages)	41,820
Payroll Taxes (Staff @ 0.0804 x total salaries & wages)	9,889.20
Office	37,000
Postage\FedEx	8,500
Phone	7,500
Fundraising Program, Grant Writing	35,000
Subtotal $	**262,709.20**

Description	Material	Language						
		Spanish $	French $	Chinese $	Arabic $	Swahili $	German $	Braille $
Kindergarten	Textbooks	26,250	28,350	31,500	31,500	34,650	31,500	40,625
Elementary School								

Grade 1	Textbooks	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Grade 2	Textbooks	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Grade 3	Textbooks	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Grade 4	Textbooks	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Grade 5	Textbooks	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Middle School									
Grade 6	Textbooks	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 7	Textbooks	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 8	Textbooks	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
High School									
Grade 9	Textbooks	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 10	Textbooks	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 11	Textbooks	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 12	Textbooks	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Misc		25,000	25,000	25,000	25,000	25,000	25,000	37,000	
Textbook Total $		**681,875**	**734,425**	**813,250**	**813,250**	**892,075**	**813,250**	**758,875**	**5,507,000**
Kindergarten	CD	26,250	28,350	31,500	31,500	34,650	31,500	40,625	
Elementary School									
Grade 1	CD	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Grade 2	CD	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Grade 3	CD	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Grade 4	CD	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Grade 5	CD	46,500	50,220	55,800	55,800	61,380	55,800	48,750	
Middle School									
Grade 6	CD	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 7	CD	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 8	CD	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
High School									
Grade 9	CD	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 10	CD	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 11	CD	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Grade 12	CD	56,875	61,425	68,250	68,250	75,075	68,250	62,500	
Misc		25,000	25,000	25,000	25,000	25,000	25,000	37,000	
CD Total $		**655,625**	**706,075**	**781,750**	**781,750**	**857,425**	**781,750**	**758,875**	**5,323,250**
Kindergarten	DVD	40,625	42,250	43,875	45,175	46,150	43,875	40,625	
Elementary School									
Grade 1	DVD	48,750	50,700	52,650	54,210	55,380	52,650	48,750	
Grade 2	DVD	48,750	50,700	52,650	54,210	55,380	52,650	48,750	
Grade 3	DVD	48,750	50,700	52,650	54,210	55,380	52,650	48,750	
Grade 4	DVD	48,750	50,700	52,650	54,210	55,380	52,650	48,750	
Grade 5	DVD	48,750	50,700	52,650	54,210	55,380	52,650	48,750	
Middle School									
Grade 6	DVD	62,500	65,000	67,500	69,500	71,000	67,500	62,500	
Grade 7	DVD	62,500	65,000	67,500	69,500	71,000	67,500	62,500	
Grade 8	DVD	62,500	65,000	67,500	69,500	71,000	67,500	62,500	

High School									
Grade 9	DVD	62,500	65,000	67,500	69,500	71,000	67,500	62,500	
Grade 10	DVD	62,500	65,000	67,500	69,500	71,000	67,500	62,500	
Grade 11	DVD	62,500	65,000	67,500	69,500	71,000	67,500	62,500	
Grade 12	DVD	62,500	65,000	67,500	69,500	71,000	67,500	62,500	
Misc		37,000	37,000	37,000	37,000	37,000	37,000	37,000	
DVD Total $		**758,875**	**787,750**	**816,625**	**839,725**	**857,050**	**816,625**	**758,875**	**5,635,525**
Translation Total $									**16,465,775**
Grand Total $									**16,728,484.20**

Income for Fiscal Year 2006/2007: $260,288.00 in donations
$ 2,800.00 in sales
Total $263,088.00

QUALIFICATIONS

About BioVoyage

Who We Are

BioVoyage Institute, Inc (BioVoyage) was founded in 1998, as a general entity, by a group of scientists and researchers in biophysics, biotechnology, bioscience and biomedicine that included Joshua Ken Davidberg, PhD; Mohamed Mitwally, MD, PhD, researcher in fertility at the University of Toronto and at the Samuel Lenenfeld Research Institute; Marco Mascini, PhD a world-renowned bioscience researcher at the University of Florence, and others. By February 2002, BioVoyage received IRS 501(c) (3) status as a not-for-profit organization.

BioVoyage Institute, Inc., (BioVoyage) is an organization dedicated to improving education, scientific knowledge, and scientific research about the present and future impact of biotechnology, bioscience and biomedicine. BIOVOYAGE offers curriculum development, implementation, assessment, and professional development services to schools (charter, home, private, public, etc); school districts; and educational agencies and organizations. Likewise, we offer educational and research programs to teachers, students, communities and general audiences to raise awareness and understanding of biotechnology, life and our environment. We specialize in standards-based biotechnology education across all grades (kindergarten, elementary, middle, high school and adult literacy education).

Our Mission

Our mission is to advance knowledge and educate ALL students (home schools, charter schools, private schools and public schools), teachers and the community about biotechnology and its immense potential for solving human health, food and environmental challenges. BIOVOYAGE aims at improving learning, teaching and human development in a diverse, rapidly changing biotechnology society.

BioVoyage is committed to creating, developing, disseminating and preserving knowledge in biotechnology, while working in partnership with students, educators and communities to effect change from “grass-roots” national to international levels.

BioVoyage is dedicated to providing students, teachers, and the community with biotechnology education that combines rigorous academic study, curiosity through research and experiments, and excitement of discovery with the support and intellectual stimulation of a diverse industry involvement.

BioVoyage is committed to encouraging each member of its organization to develop the ability and passion to work wisely, creatively, and effectively for the betterment of all races, peoples and creeds.

Our Vision

BioVoyage is becoming a national source for reliable scientific information and perspective about biotechnology education and lab experiments, and a leading provider of biotechnology books for teachers, administrators, students, the general public and communities.

To achieve this, we will:

Educate teachers, especially those in economically disadvantaged communities (and poorly funded schools), and those teachers who are not involved in biotechnology. This will be accomplished through (a) professional development and support materials; and (b) link and support of local teacher programs.

Encourage students to pursue careers in biotechnology sciences, through education, hands-on experience (laboratory experiments), workshops, publications and award programs.

Inform policy makers, media, and other opinion leaders through seminars, roundtables, research reports and white papers.

Who do we serve?

BioVoyage works with schools (private, home, charter, etc), school districts, State Departments of Education, communities, and foundations to support the creation, development and implementation of biotechnology standards-based curriculum, instruction, and assessment.

BioVoyage assignments primarily consist of biotechnology curriculum development; training of teachers; establishing of laboratories; workshops; support for on-site implementation; development and dissemination of products, materials and information; research and development; and program evaluation.

Summary of Goals

Within five (5) years:

- To educate 25,000 teacher-leaders (especially kindergarten, elementary, middle school and high school) and 500,000 students through education, hands-on workshops that introduce labs and teacher-tested activities to bring biotechnology into the classroom.

- To increase the number of K-12 school students pursuing biotechnology studies through education, exposure to laboratory experiments, and to link schools and students with biotechnology industry mentors.

- To raise general public awareness, understanding, and appreciation of biotechnology through an interactive Web site that provides reliable information and perspectives on biotechnology.

- Host educational forums that focus on timely biotechnology topics for key government officials, policy leaders, members of the academic community, industry representatives and the press.

Accomplishments

BioVoyage has received considerable funding and support worldwide. Collaborative research on the Medical Probe and diagnostic devices were conducted in institutions throughout the U.S. and Canada. Researchers include Joshua Ken Davidberg, PhD, primary researcher and Clifford Librach, MD, FRCS, a specialist in reproductive endocrinology and infertility at the University of Toronto. Dr. Librach helped to design the vaginal wand adapter of the Medical Probe. Other collaborators include: Kunal Mitra, PhD, Director of the Laser, Optics, and Instrumentation Laboratory, Florida Institute of Technology; Ron Waynant, MD, PhD, Johns Hopkins University and the Food and Drug Administration; (Most of the testing was done at the FDA's facilities); and Charles Lambert, MD, PhD, Health First Heart Institute.

Other grants and support include:

- Collaborative research support from the Universities of Toronto and Florence;
- Collaborative curriculum support with the Universities of Wisconsin & Iowa;
- A $10,000 Industrial Research Assistance Program grant from the Canadian government;
- $2,500,000 equipment funding from Department of Health and Human Services, National Institutes of Health and Property Utilization Section;
- Collaborative curriculum support and training with University of Florida
- Collaborative curriculum support and training Utah State University;
- In-kind support from the University of Florence (more than $200,000);
- Prototype development and testing of the Medical Probe by GE Medical, Toronto;
- New business startup support from Grant Thornton, a major accounting firm.

With remarkable success, our innovative and challenging educational program was implemented at The Joseph Little~Nguzo Saba Charter School. We successfully made presentations to Palm Beach County School Board; Broward County School Board; Miami Dade County School Board, various schools in the Bahamas and the Bahamian Government. Likewise, we made presentations to schools in Jamaica and the Jamaican Government; also in Canada and other countries. We have also received the following letters of support:

Executive Vice President and Provost
111 Cope Administration Building
Middle Tennessee State University
Murfreesboro, Tennessee 37132
Office: (615) 898-2880 • Fax: (615) 898-5029

MIDDLE TENNESSEE STATE UNIVERSITY

February 18, 2008

To Whom This May Concern:

SUBJECT: SUPPORT OF GRANT FUNDING TO BIOVOYAGE INSTITUTE, INC.

I am pleased to write this letter of recommendation on behalf of BioVoyage Institute, Inc., a Florida not-for-profit organization dedicated to bridging the gap in school science programs from kindergarten through higher education. Few are aware that biotechnology as a specialized field in the sciences has not fully caught on in American schools, which greatly places our students at a disadvantage on the global front. BioVoyage's Educational program is timely and greatly needed.

BioVoyage Institute, Inc. intends to use funding granted to expand its Biotechnology Education Program, which will provide biotechnology education, support and resources to students and teachers from kindergarten to the university, and particularly to students and teachers in educationally and economically disadvantaged schools. Its educational program will address the needs of children and other individuals on a local, national and international scale.

This letter of support of the biotechnology educational program is therefore written with great enthusiasm and the hope that funding is secured to carry out BioVoyage's objective to partner with schools, institutions of higher education and other agencies. The company's mission greatly complements the Middle Tennessee State University's recent National Science Foundation grants and work to train teachers in the field in biotechnology. We have proposed a new Ph.D. in Math and Science Education which will use and develop research in these areas. Teachers who have the opportunity to participate in BioVoyage training in the delivery of biotechnology instruction will use specialized textbooks designed for kindergarten readers on through college. As such, we support BioVoyage and its efforts to reach children of all ability levels through biotechnology instruction, programming, textbooks and other products.

I endorse BioVoyage bioscience program enthusiastically and without reservation. Please feel free to contact me if I can be of further assistance.

Sincerely,

Kaylene A. Gebert, Ph.D.

Wits School of Education

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12 February 2008

To Whom It May Concern:

It is my distinct pleasure to write this letter of recommendation on behalf of BioVoyage Institute, Inc. There is no doubt in my mind that such a bold step by BioVoyage to develop a biotechnology education programming designed to meet the needs of educationally and economically disadvantaged youth, will bring positive benefits to students worldwide.

We at the International Gifted Education Teacher-Development Network, located in Johannesburg, South Africa are cognizant of the severe shortage of trained biotechnology personnel worldwide. Likewise, we are aware that many, if any, schools (elementary, middle and high) are not teaching bioscience as a subject matter. Most challenging and innovative about BioVoyage's education program is the integration of math, reading, writing, research, social studies, etc., all intertwined into one educational program.

Therefore, we particularly look forward to BioVoyage's interests in embarking upon a plan that would allow all children in educationally deprived schools, across the globe, to have access to biotechnology textbooks, training and other resources. We particularly look forward to a partnership with BioVoyage that include annual textbook rentals and purchases at affordable costs. BioVoyage's expertise in the acquisition of grant funding will be most welcomed in this effort.

I therefore whole-heartedly support BioVoyage's bold initiative in developing and implementing such challenging and innovative educational programming that will benefit all humans. This will bring hope and prosperity where there was none.

We highly recommend BioVoyage's educational program to private and public sponsors, and request that you generously support this effort, to improve the growth and resources of our children and communities.

Sincerely,

Misheck Ndebele

Misheck Ndebele_____
(Lecturer, Wits School of Education)
University of the Witwatersrand
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BEAULIEU PREPARATORY SCHOOL

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13 February 2008

Dear Dr. Scott

The Beaulieu Preparatory School is pleased to write this letter of support. We eagerly look forward to partnering with the BioVoyage Institute, Inc., to provide a BioScience Education Programme that includes specialised biotechnology textbooks, CDs, DVDs, etc., that are designed for our primary and secondary school use. Although the objective of the bioscience programme is to help all students, those who are gifted and highly able in the sciences must be keenly prepared and competitive in a global economy that is no doubt steadily advancing.

We appreciate any grant issuing foundation that takes an interest in BioVoyage's mission, as it will help the Beaulieu Preparatory School's current and new students further develop their scientific skills through a new and innovative bioscience programme. We believe that Beaulieu Preparatory School can benefit from a partnership with BioVoyage in several ways. At present, discussions have included student-teacher exchanges, teacher development training in the sciences and identifying highly gifted students; and now making biotechnology textbooks, curricula, teacher manuals and other products available to our students.

We support BioVoyage's efforts in securing financing for its innovative and challenging educational programmes so referenced herein. We hereby encourage your support for this company's educational initiatives.

Yours sincerely

MRS. N. HILLEN
HEADMISTRESS

In 2006, we developed and implemented a bioscience summer program, which was highly successful. The GPA of the students taking part jumped from 'F' to 'C' in less than 90 days.

BioVoyage promises to contribute to the economic development of Florida and nationally through education, the development of a biotechnology research institution and the creation of professionals, educators, skilled, and unskilled jobs.

Recent Activities

During 2007, we spent most of our time conducting seminars and making presentations to validate acceptance of the textbooks. Based upon the feedback received, we made changes to the textbooks. Now we are ready to go into production (print), write the additional textbooks and make delivery to our clients.

Board Members

Joy M. Scott, M.Ed, PhD. - Chairperson
Joy has more than 20 years of combined experience in education, administration, university teaching, program development and implementation, grants administration, counseling, teacher development and research in education. She has successfully administered three cycles of U.S. Department of Education grants, foundation and other grants; some housed at Northwestern University, Evanston. She is co-founder of Iget-Net, an international SIG with a focus on identifying and nurturing the potentials of higher gifted learners.

Naydon Sutherland, MSc, BSc, TC – Co-Chair
Ms. Sutherland holds an MSc, BSc and Teachers' certificate all in education. She is the Co-Chair for BioVoyage. She has more than 20 years experience as a teacher, lecturer, trainer, academic counselor and as an administrator. She has extensive experience in curriculum development and implementation and training of teachers.

Carmella Sye Morton, PhD - Director
Dr. Morton holds a Ph.D in Curriculum and Instruction and is the President of RISE Education Consultants/RISE Schools, Inc. She is a former science teacher, school administrator and Senior Vice President of Education for the second largest Educational Management Organization in the country. She is a national consultant who has worked with schools and school districts throughout the nation in all areas of school improvement, curriculum development, professional development and leadership training for both teachers and administrators. As a developer and curriculum specialist, Dr. Morton has designed programs to meet the needs of diverse student populations.

Wayne Burrows, MD, PhD - Director
Wayne has more than 15 years of experience in medicine, biochemistry, and writing fiction and non-fiction for adults and children of various ages. He was assistant professor of OB/GYN. Wayne served on various hospital boards and other not-for-profit organizations.

Earl Cunningham, MM, BA - Director
Earl was Acting University Director and a senior member of the vice president for institutional advancement's staff for a major university. He was a senior member of the alumni relations staff, edited, wrote for and designed a national award-winning magazine. He was an Associate Director, and managed an 18-member staff at a major university.

CONCLUSION

The biotechnology industry is growing at an impressive rate and as such requires an ever-growing supply of qualified and trained biotechnology professionals. BioVoyage intends to provide that supply by further developing and implementing our Biotechnology Education Program to offer students, teachers and others to learn and benefit from our materials, information and expertise.

It is also unsettling to realize that such a large majority of educational institutions are not currently offering any kind of biotechnology-related curricula. We aim to solve that problem with our ability to relocate our resources to the institution in question.

The knowledge gap that currently exists between well-financed and underprivileged schools is another issue we plan to target. By providing our Biotechnology Education Program and associated services, support and resources, at an affordable cost, we will raise the standards of these poorly-funded education institutions and bridge that gap.

We believe the future of our country's biotechnology industry is in our hands and we plan to take that responsibility very seriously. With your support, we will be a leading source of biotechnology resources, information and educational curricula and work to provide these resources to those who need it, for the positive development and success of the future of biotechnology.

In concluding, we would like to thank you for your time in considering this proposal and hope to soon welcome you as a supporter of our organization and our Biotechnology Education Program.

APPENDICES

Whatever needs to be sent along with this proposal will be listed here.