



LIFE SCIENCES SUMMER INSTITUTE



Life Sciences Summer Institute
High School Student Research Program
Application

Program Dates: June 18-August 10, 2012
APPLICATION DEADLINE: MARCH 31

Program Description:

The High School Student Research Program, a part of the Life Sciences Summer Institute will be held June 18-August 10, 2012. The program begins with a one-week unpaid pre-internship “boot camp”, followed by a 7-week paid research internship; including enrichment activities.

Boot Camp Training:

Students attend a one-week pre-internship “boot camp” from **June 18-22, 2012**. Boot Camp is unpaid; however, college credit is made available for those who qualify.

Boot camp is held at either Miramar College or Grossmont College and is determined by the school and/or school district you attend, and/or the research institute you are selected to work at.

Paid Internship:

Students are paid \$9.00/hr. for the 7 week internship and required to work full time Monday thru Friday (no exceptions).

Eligibility:

- Applicants must be San Diego County residents and have completed their most recent semester of high school at a public or private high school within San Diego County
- Applicants must be at least 16 years of age on or before June 25, 2012
- Applicants must have successfully completed at least one year each of high school level chemistry and biology
- Applicants must have a minimum grade point average of 3.0
- Applicants must be able to commit to 40 hrs/wk for the duration of the program
- Applicants under 18 must submit a blank work permit application (available from your high school career center)
- Applicants must be able to provide their own transportation

A special emphasis is placed on identifying and recruiting students from groups that are historically underrepresented in the sciences (i.e., African-American, Hispanic, Native Pacific Islander, or Native American students).

Participating Research Institutes:

Salk Institute for Biological Studies (Salk)

http://www.salk.edu/support/summer_program.html

The Scripps Research Institute (TSRI)

http://education.scripps.edu/kellogg_school/outreach_engagement/ca_high_school_internship.php

Application and Selection:

Completed applications and supporting documentation (see checklist) must be provided as a single packet postmarked by **MARCH 31**

Only students selected to be interviewed will be contacted between April and May 2012.

BRIDGE is an equal opportunity employer/program. Upon request auxiliary aids and services are available to individuals with disabilities.

Applicant Name: _____

Application Guidelines:

Here are a few tips for making sure your application is the best representation of you!

Responsibilities:

- ✓ Students have complete responsibility for contacting LSSI with any questions and/or concerns they may have regarding the program and/or application. *If you aren't sure about something, if you're wondering about a document, if you're not sure how to fill something out or whether particular information needs to be included – ASK US! Your teachers, counselors, parents, etc. can certainly advise you but always be sure to double check with us about any details if necessary! Don't have your application rejected because you thought an instruction meant something different!*
- ✓ Be your own advocate! - It is important for the students to advocate for themselves. *YOU are applying for this position, not your parents. Any questions etc. need to come from you.*
- ✓ LSSI contact email address is: biotech@workforce.org. *Ask early and ask often!*

Application:

- ✓ All requested documentation must be submitted as a single packet postmarked no later than the deadline date (March 31). *This includes your recommendation letters in their own sealed envelopes.*
- ✓ Drop-off applications will NOT be accepted.
- ✓ Extra documentation (i.e. copies of certificates, awards, additional letters of recommendation, pictures, etc) will NOT be accepted and will be subject to disqualification.
- ✓ Print legibly where needed and/or type where you can and proofread all information submitted. *Neatness DOES count! Use ink, don't cross-out, white out, etc. It's not a timed essay – re-do any sections you need to.*

Resume:

- ✓ Resume (sample available on Google) should be no longer than one page, and include ONLY relevant information. *This is 'you at a glance' – keep it short, sweet, and to the point.*
- ✓ Suggested information/sections to include: contact information, education, any and all work experience, skills and abilities, and other relevant information as it applies to the internship program. *The spelling bee award from 3rd grade is nice, but doesn't have anything to do with the position you are applying for.*

Cover Letter:

- ✓ Cover letter (sample available on Google) is an introduction to yourself and explains why you are submitting an application.
- ✓ Should be no longer than one page.

Email Address:

- ✓ Life Sciences Summer Institute's staff and partners main form of communication is via email (primarily biotech@workforce.org).
- ✓ It is important that students include their own personal email address on their application. If necessary, please create a new email address that is professional and will only be used to communicate with LSSI and/or other employers.
- ✓ Examples of professional email addresses include:
john.doe@yahoo.com, jdoe@hotmail.com, johnd@gmail.com.
- ✓ Examples of unprofessional email addresses include:
skaterboy@gmail.com, foxylady@hotmail.com, gigglez27@yahoo.com
- ✓ Do not use your parent's email address. It is strongly suggested that you create your own.
- ✓ Verify that your email is legible on your application. *Make sure there's no confusion as to whether it's a number 1 or a lower case l etc. Consider writing your email as all caps for clarity if necessary since emails aren't case sensitive.*

If you have any questions regarding your application, LSSI, or any participating Institute, please email biotech@workforce.org.

Applicant Name: _____

LSSI High School Student Research Program Application Checklist

Please assemble your application in the following order:

1. This checklist, placed on top of the rest of the documents
2. Application form (please make sure all information is included and complete)
 - a. Essay
 - b. Media Release Form
 - c. Parent Consent page (if applicant is under 18)
3. High school transcript(s) (official or unofficial)
4. Cover letter
5. Resume
6. If necessary, a work permit **application** with your name on it (if applicant will be under 18 at time of internship)
7. Two recommendation forms with attached narratives. Recommendations should be from your biology teacher, principal, other teacher, advisor/counselor, or work supervisor who can evaluate your potential for this summer research experience, taking into consideration your accomplishments, intellectual prowess, independent work habits, capacity for critical and analytical thinking, and/or ability to organize and express ideas clearly and intelligently.
It is strongly recommended that one letter of recommendation come from a math or science teacher.

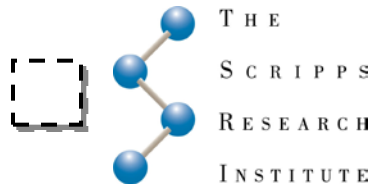
**Note: Please make sure each recommendation is in a sealed envelope*

PLEASE INCLUDE MY APPLICATION PACKET FOR REVIEW BY THE FOLLOWING:

PLEASE NOTE: Please check all that apply. Only students selected to be interviewed will be contacted.



Interviews will begin in mid-May with final notification no later than May 31st.



TSRI requires attendance at 5 consecutive Spring Enrichment Tutorials held on Wednesday afternoons starting May 16th. Interviews will be held April 23 to April 28, with acceptance to the Spring Enrichment Tutorials no later than May 2nd.

Please also include my application for review by life science industry companies and alternative research institutes located in San Diego.

Essay: Please briefly address the following topics in a short essay, not to exceed 1000 words.

Please attach your typed essay to your completed application packet

- What area of science research are you most interested in? Please relate this to a past personal or classroom experience.
- What benefits do you hope to gain from a research internship?
- Describe your extracurricular interests and hobbies, including any honors or awards.

Applicant Name: _____

Applicant Information:

Name: _____
Last First Middle

Mailing address: _____
Street Address or Post Office Box City/State Zip

Telephone: _____ E-mail: _____

Date of birth: _____ Age: _____
*Applicants must be at least 16 years of age at the beginning of the internship

Gender: Male Female

Ethnic Identification (*please check one*):
 Hispanic or Latino White (Not Hispanic or Latino)
 Black or African American (Not Hispanic or Latino) Asian (Not Hispanic or Latino)
 Native Hawaiian or Other Pacific Islander (Not Hispanic or Latino)
 American Indian or Alaska Native (Not Hispanic or Latino)
 Two or more races (Not Hispanic or Latino)

San Diego County High School: _____
School name District

Current Grade: _____ Current GPA (cumulative unweighted): _____

Education/career goals: _____

If offered employment with a participating Institute, will you be able to provide documentation that you are a citizen, national, lawful permanent resident or alien authorized to work in the United States and at the Institute in the position applied for on the first day of work?

Yes No

*As a condition of employment with an Institute, successful candidates must provide written documentation to prove either citizenship or proper authorization to work in the United States. Specific instructions will be provided prior to your first day of employment regarding legally required documentation.

Applicant Name: _____

Academic Background / Work Experience: (continue on additional paper if necessary)

List all coursework you have completed or are in the process of completing that specifically relates to an internship in research science (please include your most recent math and science courses, noting those that include laboratory work).

Course: _____ Grade Year Taken: _____ Grade Earned: _____

Briefly describe any hands-on lab experience you have: (lab experience is not a requirement for admission)

Employment History:

Employer: _____ Dates employed: _____ Hrs/wk: _____ Position: _____

Applicant Name: _____

General Information:

Have you previously participated in any of the following internship programs?

J. Craig Venter Institute: ___ YES ___ NO

Sanford Burnham Institute for Medical Research: ___ YES ___ NO

La Jolla Institute for Allergy & Immunology: ___ YES ___ NO

Salk Institute for Biological Studies: ___ YES ___ NO

San Diego Supercomputer Center: ___ YES ___ NO

The Scripps Research Institute: ___ YES ___ NO

Life Sciences Summer Institute: ___ YES ___ NO

Introductory Life Sciences Experience (ILSE): ___ YES ___ NO

If you answered yes to any of the above, please specify internship location, dates, and mentor or supervisor:

Do you have any relatives working or associated with any of the above participating Institutes? If yes, please provide their name and location: _____

How did you hear about the LSSI High School Student Research Program? _____

Have you previously applied to LSSI? ___ Yes ___ No If so, what year? _____

Please list your parents'/guardians' highest level of education: (Example: Some High School, High School Diploma, Some College, College Diploma, Master's Degree, Ph.D.)

Mother/Guardian: _____

Father/Guardian: _____

Mother/Guardian's Place of Employment: _____

Father/Guardians' Place of Employment: _____

Do you have any siblings? If yes, please list their ages: _____

Total number of people living in your household (including you): _____

Does your family receive public assistance, food stamps, SSI, SSA or unemployment insurance?
___ Yes ___ No

Do you live in a single parent household? ___ Yes ___ No

Total Family Income (12-month income):

<20,000 20,001-40,000 40,001-60,000 60,001-80,000 >80,001

Have you applied (or do you plan on applying) for any other summer position(s)? ___ Yes ___ No

If yes, where? _____

Do you have any prior commitments or circumstances that conflict with the internship program dates or limit your participation in a 40-hour work week? ___ Yes ___ No

If yes, please explain. _____

Applicant Name: _____

Research Interests:

The LSSI High School Student Research Program includes laboratories focused on the overarching areas of neurosciences, genetics, biochemistry, chemistry, and immunology in addition to molecular, plant, computational, and cell biology. **Please rank your interest in the following areas 1 – 9 (1 being the highest interest and 9 being the lowest):**

____ Neurosciences

Includes research studies which span the structure, function, evolutionary history, development, genetics, biochemistry, physiology, pharmacology, computational neuroscience and pathology of the nervous system.

____ Molecular Biology

Molecular biology chiefly concerns itself with understanding the interactions between the various systems of a cell, including the interactions between genes encoded in the DNA, RNA and protein biosynthesis and learning how these interactions are regulated. Many other disciplines make use of techniques that molecular biology invented: DNA cloning, genetic manipulation etc. Molecular biology is at therefore at the basis of many other disciplines.

____ Genetics

Involves studies of gene regulation and the involvement of genes in development and cancer, including patterns of inheritance.

____ Plant Biology

The study of the mechanisms of plant growth control influenced by hormonal or environmental factors using a combination of molecular, cellular, genetic, biochemical, or genomic approaches. The higher plant *Arabidopsis* (the laboratory rat of the plant world) or the green algae *Chlamydomonas* or *Volvox* will be used as a model system.

____ Chemistry

Involves synthesis of medicinally relevant small molecules and natural products, design of synthetic routes, and development of novel methodologies which are widely applicable within the field. Disciplines include organic, inorganic, and organometallic chemistry.

____ Computational Biology

An interdisciplinary field that probes the complexity of biology using techniques from computer science, applied mathematics, and statistics. This includes understanding protein and genome sequences (computational genomics), large amounts of experimental data such as gene expression profiles (bioinformatics) and computational modeling, which builds programs to simulate biological processes from cell division to organ growth to brain function.

____ Biochemistry

The next step up from molecular biology, biochemistry combines synthetic organic chemistry and chemical principles to study molecular design, chemical synthesis, and biological investigations of molecules with specific biological actions such as enzyme inhibitors, DNA cleaving molecules, antitumor agents, and chemical catalysts. The main focus of biochemistry is on the function of proteins, the actual effectors of genes. Biochemists will research if and how proteins become modified when cells receive a certain signal, if proteins travel to different parts of the cells to activate a certain pathway etc.

____ Cell Biology

Includes studies of cells' physiological properties, their structure, organelles, environmental interactions, their life cycle, division and death.

____ Immunology

Research topics include physiological functioning of the immune system in states of both health and diseases; the response to bacteria and viruses, improvement of vaccines, malfunctions in immunological disorders (autoimmune diseases, hypersensitivities, immune deficiency, allograft rejection); and the physical, chemical and physiological characteristics of the components of the immune system in vitro, in situ, and in vivo.

Applicant Name: _____

PLEASE RESPOND TO THE FOLLOWING IN YOUR OWN HANDWRITING:

Briefly explain your ranking of the research interests listed on the previous page, including any strong preferences you have for or against working in any specific area. Explain why you prefer (or do not prefer) to work with laboratory animals. (This information will be used as a guide for assigning students to projects. We will make every effort, but cannot guarantee, to assign students to projects that meet their stated preferences).

Applicant Name: _____

Working with Laboratory Animals:

Some research projects involve the use of laboratory animals, including mice. Please indicate your preference about working with laboratory animals by checking one of the spaces below:

___ I am comfortable with the use of animals being used to advance biomedical research and am not adverse to working at an institution that uses animals for the purpose of biomedical research; but do not wish to have direct exposure or interaction with such research.

___ I am comfortable with the use of animals being used to advance biomedical research and am not adverse to working at an institution that uses animals for the purpose of biomedical research; and would accept a position that requires direct exposure to animal research or procedures involved with animal research.

___ I am adverse to animals being used for the purpose of biomedical research and do not wish for my application to be given further consideration.

*Note: All research institutes involved with this program comply with government regulations and guidelines for the care and use of vertebrate animals in research and training. All student projects involving animals are approved by the Institute's Animal Care and Use Committee, and students who will work with animals attend training sessions before handling animals.

Working with Stem Cells:

Some research projects may involve the use of stem cells. Please indicate your preference about working with stem cells by checking one of the spaces below:

___ I am comfortable with stem cells being used to advance biomedical research and am not adverse to working at an institution that uses stem cells for the purpose of biomedical research; but do not wish to have direct exposure or interaction with such research.

___ I am comfortable with stem cells being used to advance biomedical research and am not adverse to working at an institution that uses stem cells for the purpose of biomedical research; and would accept a position that requires direct exposure to stem cells or procedures involved with stem cell research.

___ I am adverse to stem cells being used for the purpose of biomedical research and do not wish for my application to be given further consideration.

*Note: All research institutes involved with this program comply with government regulations and guidelines for stem cell research.

Applicant Name: _____

Student Certification / Consent:

___ This certifies that the information I have entered on this form is complete and accurate.

___ I acknowledge that I will treat as confidential all information that I may read or hear, directly or indirectly. If accepted for the LSSI High School Student Research Program, I agree to conform to the rules and regulations of the Institute. I understand that I will be required to attend an orientation session and participate in training specific to my assignment. I acknowledge that either the Institute or I may discontinue my status at any time and for any reason.

___ If selected to participate I agree to submit to any additional documents that may be required based on grant funding.

___ If accepted for the LSSI High School Student Research Program, I will attend the program in its entirety, from June 18-August 10, 2012 (full-time Monday-Friday).

I certify that this application packet is complete:

Signature of Applicant **Date:** _____

Printed Name

Make a copy of your complete application packet for your records and submit all necessary (original) documents in a single envelope to the following address, POSTMARKED NO LATER THAN MARCH 31. Please make sure your packet is postmarked and you retain your receipt.

LSSI High School Student Research Program
Attn: Erika Arangur 
San Diego Workforce Partnership, Inc.
3910 University Ave., Suite 400
San Diego, CA 92105

CONFIRMATION OF RECEIPT: AN EMAIL WILL BE SENT WITHIN TWO WEEKS AFTER THE DEADLINE STATING THAT YOUR APPLICATION WAS RECEIVED.

***NOTE: LATE AND/OR INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED AND WILL BE NOTIFIED WITHIN TWO WEEKS AFTER THE DEADLINE. ALL APPLICATIONS WILL BECOME PROPERTY OF THE SAN DIEGO WORKFORCE PARTNERSHIP AND WILL NOT BE RETURNED.**

Applicant Name: _____

**PARENTAL PERMISSION AND CONSENT
(If applicant is under 18)**

Parent(s) Name: _____

Mailing address: _____
Street Address or Post Office Box City/State Zip

Telephone: (Home) _____ (Cell) _____ (Other) _____

Initialed by Parent or Guardian:

___ This certifies that I approve of this application and that the applicant has my consent to participate if selected.

___ I understand that my son/daughter may be working with hazardous chemicals, radioactive materials and biological materials. Student interns will be provided training in the safe handling of these items.

___ I understand that if my son/daughter is selected to participate I agree to submit to any additional documents that may be required based on grant funding.

___ I understand that the LSSI High School Student Research Program runs from June 18-August 10, 2012 and my son/daughter will be required to attend the program in its entirety.

Signature of Parent(s) or Guardian(s):

_____ **Date:** _____



To use the Multimedia Publicity/Privacy Release form, print out the form at intake and have it signed by the applicant, or their parent or legal guardian, if under 18 years of age. A hard copy should be kept along with other eligibility determination documentation in the applicant's file. A copy should be provided to the applicant, or the parent or legal guardian, if the applicant is less than 18 years of age.

MULTIMEDIA PUBLICITY/PRIVACY RELEASE

I hereby irrevocably grant to San Diego Workforce Partnership, Inc., its subsidiaries, affiliates, nominees, licensees, their successors and assigns, and those acting with its authority (hereinafter collectively referred to as "SDWP"), with respect to (a) my story, (b) voice, and/or (c) photographs, film or tape (the "Materials") taken of me or relating to me by or on behalf of SDWP, the unrestricted, absolute, perpetual, worldwide royalty-free license and right to:

(1) Reproduce, copy, modify, create derivatives in whole or in part, or otherwise use the Materials or any part thereof in combination with or as a composite of other matter, including, but not limited to, text, data, images, photographs, illustrations, animation and graphics, video or audio segments of any nature, in any media or embodiment, now known or hereafter to become known, including, but not limited to, all formats of computer readable electronic, magnetic, digital, laser or optical-based media (the "Works"), and

(2) Use and permit to be used my name, whether in original or modified form, in connection with the Works as SDWP may choose, and

(3) Display, perform, exhibit, distribute, transmit or broadcast the Works by any means now known or hereafter to become known.

Waiver and Release

I hereby waive all rights and release SDWP from, and shall neither sue nor bring any proceeding against any such parties for, any claim or cause of action, whether now known or unknown, for defamation, invasion of privacy, publicity or personality, false light, or any other matter, whether based upon or relating to the use and exploitation of the Materials or otherwise.

I agree that there shall be no obligation to utilize the authorization granted by me hereunder. The terms of this authorization shall commence on the date hereof and be without limitation.

Signature _____ Print name _____ Date _____

Witness Signature _____ Print name _____ Date _____

As a parent or legal guardian of an applicant under 18 years of age I have read this release and am fully familiar with its contents. I approve and agree to the foregoing. My child is ____ years of age.

Parent/Guardian Signature _____ Print name _____ Date _____

Witness Signature _____ Print name _____ Date _____



LIFE SCIENCES SUMMER INSTITUTE

LSSI High School Student Research Program
Recommendation Form

Please complete this recommendation form and return it to the applicant in a sealed envelope.

Applicant's Name (please print): _____

Name of Evaluator: _____

Evaluator's Title: _____ Institution: _____

Address: _____

Telephone: _____ Email: _____

How long have you known the applicant? _____

In what capacity? _____

Please place check marks in the boxes that represent your evaluation of the applicant.

	Below Average	Average	Excellent	Outstanding	No basis for judgment
Energy and initiative					
Ability to work independently					
Ability to work in a group					
Fulfills goals					
Works to capacity					
Oral expression					
Written expression					
Originality					
Social maturity					
Self-confidence					
Dependability					
Disciplined work habits					

In an attached letter please provide additional comments that will help us to assess this applicant.

Areas that might be addressed include:

The benefits you feel the applicant would receive from this program and what he or she might contribute;

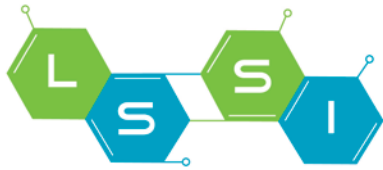
Personal qualities of the applicant that might particularly recommend him or her for this program;

Any awards, special activities, and projects that indicate talent and potential in the sciences; and

Any necessary explanation, if the student's academic record does not seem to accurately reflect his or her abilities.

Signature: _____ Date: _____

Applicants are required to send all pieces of their application to us in one envelope.



LSSI High School Student Research Program
Recommendation Form

LIFE SCIENCES SUMMER INSTITUTE

Please complete this recommendation form and return it to the applicant in a sealed envelope.

Applicant's Name (please print): _____

Name of Evaluator: _____

Evaluator's Title: _____ Institution: _____

Address: _____

Telephone: _____ Email: _____

How long have you known the applicant? _____

In what capacity? _____

Please place check marks in the boxes that represent your evaluation of the applicant.

	Below Average	Average	Excellent	Outstanding	No basis for judgment
Energy and initiative					
Ability to work independently					
Ability to work in a group					
Fulfills goals					
Works to capacity					
Oral expression					
Written expression					
Originality					
Social maturity					
Self-confidence					
Dependability					
Disciplined work habits					

In an attached letter please provide additional comments that will help us to assess this applicant.

Areas that might be addressed include:

The benefits you feel the applicant would receive from this program and what he or she might contribute;

Personal qualities of the applicant that might particularly recommend him or her for this program;

Any awards, special activities, and projects that indicate talent and potential in the sciences; and

Any necessary explanation, if the student's academic record does not seem to accurately reflect his or her abilities.

Signature: _____ Date: _____

Applicants are required to send all pieces of their application to us in one envelope.