

**Juan Diego Catholic High School Math and Science Academy
Summer Research Program
In partnership with the University of Utah College of Pharmacy**

June 1, 2009 – July 17, 2009

The Juan Diego Math and Science Academy is a new program at JDCHS developed in partnership with the University of Utah College of Pharmacy to enhance student understanding and interest in science and technology.

In this 2009 pilot Summer Research Program, students will gain exposure to career options in the biomedical sciences, hands-on laboratory experience, and mentoring by research scientists and Juan Diego faculty. This seven-week program begins with a one week hands-on training in common lab skills at Juan Diego Catholic High School, followed by a six-week internship at the University of Utah College of Pharmacy. During the internship, students will be involved with a full-time research project as well as enrichment activities. Students will learn how to formulate and test hypotheses, prepare research experiments, draw conclusions from those experiments, and participate in lab meetings and group discussions. At the end of the experience, students will prepare a written report of their research for the Intermountain Junior Science and Humanities Symposium at the University of Utah in Spring 2010.

The one week lab training class prior to the internship experience will provide attendees with hands-on training in biotechnology skills useful in pharmacology and other biomedical fields. Activities will include:

- Western blot
- SDS Page
- Plasmids
- Comparative Proteomics
- Cloning Transformation
- Chromatography
- Protein Purification

Laboratories participating in the summer research program perform a wide variety of research, including, but not limited to:

- Genetics
- Forensic Science
- Illegal Drug testing for athletic organizations
- Brain and Behavior studies using a rat model
- New drug discovery and testing for a variety of illnesses including epilepsy
- Electrophysiology
- Investigating the effects of illegal drugs such as methamphetamines

Completed Applications and supporting documentation (see checklist) must be provided as a single packet by **FEBRUARY 13, 2009**.

Please direct questions to Dr. Christine Celestino; ChristineCelestino@jdchs.org

Applicant Name: _____

Some research projects involve the use of laboratory animals, including rodents. 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.

Applicant Name: _____

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 Summer Research Program, I agree to conform to the rules and regulations of the Program, Juan Diego Catholic High School, and the University of Utah College of Pharmacy. I understand that I will be required to attend an Orientation Program and participate in any training specific to my assignment. I acknowledge that either Juan Diego Catholic High School or I may discontinue my status at any time and for any reason.

___ If accepted for the Summer Research Program, I will attend the program in its entirety, from June 1, 2009-July 17, 2009.

Signature of applicant:

_____ **Date:** _____

Parental Permission

___ 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, to include live animals and tissues. Student interns will be provided training in the safe handling of these items and will be supervised at all times by trained researchers.

___ I understand that the Summer Research Program runs from June 1, 2009-July 17, 2009 and my son/daughter will be required to attend the program in its entirety.

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

_____ **Date:** _____

Applicant Name: _____

Application Checklist

For a complete application, please assemble your application in the following order:

- ___ This checklist, placed on top of the rest of the documents
- ___ A cover letter
- ___ A completed, signed application
- ___ Your typed essay as described in the application
- ___ A resume showing your employment and service history
- ___ A copy of your high school transcript

I certify that this application packet is complete

Printed name

Signature

Date: _____

Please make a copy of your application for your own records and submit all necessary documents in a single manila envelope to the following address no later than February 13, 2009:

Juan Diego Catholic High School
Math and Science Academy
c/o Dr. Christine Celestino
Skaggs Catholic Center
300 East 11800 South
Draper, UT 84020

*** Note: Late and/or incomplete applications will not be accepted. All applications become the property of Juan Diego Catholic High School and will not be returned.