GENERAL SCIENCE

Fair Winners' Dreamland

➤ LOS ANGELES will become the young scientists' capital of the United States during the National Science Fair, May 9-11.

About 231 girls and boys, representing 122 regional science fairs, will come into Los Angeles to exhibit projects.

The three days of the Eighth National Science Fair, conducted by SCIENCE SERVICE, will offer unique opportunities for the young scientists to meet other teen-agers who are interested and competent in science, to talk with some top scientists who are serving as judges of the projects, and to expand personal plans and interests.

It is no wonder that so many science-minded high school students worked hard for the reward of an all-expense trip to the Eighth National Science Fair. The potential scientists fortunate enough to have won the trip will find that both the Fair and the Los Angeles area offer them unique opportunities and inspiration.

Trips to the California Institute of Technology, the University of California at Los Angeles, or the University of Southern California will be many high school students' introduction to a college campus and their first glimpse of such dreamed-of wonders as a synchrotron, a hypersonic wind tunnel, a "cobalt bomb" for cancer treatment, and full scale college laboratories.

The La Brea Tar Pits, where thousands of specimens of later Pleistocene animals have been collected, is the only place like it in the world.

Another "only" experience will be the Walt Disney Studios and a film especially prepared for the National Science Fair, which will give an inside view of the secrets of photographing wild life and true life.

Then there is the Arboretum, where the students can see southern California desert and valley plants and plant experiments; the world's largest oceanarium, the Marineland of the Pacific, with thousands of deep sea creatures in natural surroundings; the famous Griffith Observatory and Planetarium; the research operations in jets, rockets, and missiles of the Los Angeles area aviation industries; precision electronic instruments, spectrophotometers, spectrometers, and other analytical instruments at Beckman Instruments, Inc.; and experiments in petroleum, gas, and chemical processing at the Fluor Corporation, Ltd.

Dr. Wendell M. Stanley, Nobel laureate and the founder of modern virus research, will be the principal speaker at the medical awards banquet, arranged by the American Medical Association, on May 10.

Dr. Stanley, who is professor of biochemistry and director of the Virus Laboratory at the University of California, Berkeley, will tell his audience of young Science Fair finalists, educators, and other guests, about "Living Molecules."

Dr. Glenn T. Seaborg, distinguished nuclear chemist and Nobel Prize winner, will be the main speaker at the awards banquet of the Science Fair.

Chemistry and his experiences in discovering chemical elements will be the subject of Dr. Seaborg's speech. He has been a leader not only in research but in the science youth program.

Dr. Howard L. Bevis, chairman of the President's National Committee for the Development of Scientists and Engineers, will also speak at the awards banquet on May 11.

Dr. Bevis says, however, that he is attending the Fair "more to look than to tell." He believes that the aims and activities of the National Science Fair dovetail very well with the purpose of the Committee.

Science News Letter, May 4, 1957

MEDICINE

Bloodletting Comes Back

➤ BLOODLETTING, the medieval medical practice of draining off various amounts of the body's vital fluid, is coming back in style, but for newer and more scientific reasons.

Plasmapheresis, a type of bloodletting where the whole blood is removed, divorced of its plasma content, and then immediately put back into the donor, has dramatically opened new opportunities for treatment of disease as well as the stockpiling of valuable plasma for emergencies.

The technique was reported by Drs. Joseph Stokes Jr. and Joseph Smolens, School of Medicine, University of Pennsylvania, to the American Philosophical Society meeting in Philadelphia.

Three main purposes of bloodletting are to relieve the body of ingested poisons, to extract immune serums, or to stockpile ordinary human plasma, Dr. Stokes told SCIENCE SERVICE.

A pint of blood is removed each time and quickly put into an especially designed centrifuge that separates the red blood cells from the plasma. The plasma is taken off for other uses and the red cells are back in the body within 21 minutes. The same blood donor can be used as often as once a week since the body's plasma level appears to return to normal within 24 hours after the bloodletting, Dr. Stokes said.

In cases of poisonings, the blood separation technique can quickly remove the toxic substances from the blood and do the job much easier than an artificial kidney does.

Plasma taken from donors who are immune to diphtheria, mumps, whooping cough and tetanus is especially valuable since it can be used for the control of these diseases in other persons. Many of the serums currently used for this have been developed in horses and because of this they cause unwanted reactions in almost half of the people who receive them, Dr. Stokes explained.

An added advantage of this type of plasma collection is that it makes available plasmas from one individual. The currently used blood donating system, Dr. Stokes reported, supplies only mixed plasmas pooled from many donors.

Science News Letter, May 4, 1957

SCIENCE NEWS LETTER

VOL. 71 MAY 4, 1957 NO. 18

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington 6, D. C., NOrth 7-2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., $5.50; 2 yrs., $10.00; 3 yrs., $14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283) authorized February 28, 1950. Established in mimeograph form March 13, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Manager: Fred A. Moulton, 1719 N St., N. W., Washington 6, D. C., ME 8-2562.