CHEMISTRY

Women in Chemistry

Dr. Mildred Rebstock, chemist who synthesized chloromycetin, advises women interested in science that they will get better breaks in chemistry than in other fields.

➤ ADVICE to young women wanting to follow a career in science: You will get a better break in chemistry than in any other field of science.

The advice comes from Dr. Mildred C. Rebstock, 30-year-old chemist of Parke, Davis and Co., Detroit, who received from President Truman one of the Women's National Press Club achievement awards. Dr. Rebstock received the award in recognition of her work in synthesizing chloromycetin, first of the "big four" antibiotic drugs to be synthesized on a practical large-scale production basis.

Dr. Rebstock's advice on scientific careers for women was given when she was interviewed by the club's president, Miss Jane Stafford, medical writer for Science Service. The interview was on Adventures in Science, radio program presented each Saturday by Watson Davis, Director of Science Service, over the Columbia Broadcasting System.

Almost half, 42%, of all women in science are employed in chemistry, Dr. Rebstock said. "But," she said, "you will find women working in every field of science, even though many of them are not on the professional level. In industry, pharmaceutical and food companies are most inclined to hire women. For instance, at Parke, Davis, the women research workers represent 40% of the technical staff. These girls all have BA or BS degrees and many of them have master's or doctor's degrees."

Opportunities in medicine seem to be particularly good, she observed. "While the percentage of women doctors is still low, more girls are gradually being admitted to medical schools. However, they are generally the very top-flight students.

"I would say that there is a wide range of careers possible for women in science generally," Dr. Rebstock declared. "Some of the jobs, such as nursing, have traditionally been a woman's job. In others, the opportunities have only recently arisen and women are still in the process of demonstrating that they can do the work well.

"But women are proving themselves, and this is demonstrated by the fact that laboratories are not going back to their prewar practice of barring women scientific workers from employment."

Science News Letter, April 22, 1950

METEOROLOGY

Ammonia Storm Control

➤ THE possibility of reversing the electrical charges in thunderstorms by spraying the clouds with ammonia and thus controlling them was discussed at a meeting of 17 outstanding meteorologists at the University of Chicago.

Laboratory experiments with lightning as reported by President E. J. Workman of the New Mexico School of Mines set off the discussion.

Dr. Workman reported that the electrical charges in a thunderstorm are built up from drops in the clouds made of an inner core of solid ice with a negative charge and an outer shell of water with a positive charge. He told the other meteorologists that his experiments showed that the nature of the tiny particles of foreign matter in the water determined whether the outer shell was positive and the inner core negative or vice versa. The gas ammonia, he said, reverses the field, at least in the laboratory. It has a chemical reaction with the tiny particles of matter already in the air.

"If we toss a few hundred pounds of ammonia into the air near a thunderstorm, it may inhibit the production of electricity," Dr. Workman speculated.

"Of course," he added, "we aren't sure what effect the ammonia would have, but we think that, at least, it would make a difference in a thunderstorm."

Experiments conducted on actual thunderstorms have not been too conclusive, Dr. Workman said. The difficulty is that there are so many kinds of thunderstorms and thus it is extremely hard to conduct a controlled experiment.

The five-day meeting, held under the auspices of the Air Force project on thunderstorm electricity, centered around a discussion of the status of research on lightning.

Science News Letter, April 22, 1950

MEDICINE

Mice with Older Mothers Have More Cancer Resistance

➤ THE older the mother, the hardier the offspring. That is the rule for cancer resistance on the part of mice, Dr. Leonell C. Strong of Yale University School of Medicine in New Haven, Conn., finds.

Mice of a female mouse's first litter survived an average of 52.4 days after developing cancer. Mice of the same mother's eighth litter born when she was older, survived an average of 130 days after developing cancer. Survival periods of litters between the first and eighth gradually increased from the 52.4 to the 130 days. The cancers were induced by injections of methylcholanthrene, potent cancer-producing chemical.

Details of Dr. Strong's experiments are reported in the journal, SCIENCE (April 14).

Science News Letter, April 22, 1950

MEDICINE

DDT Does Not Poison by Absorption through Skin

➤ THE notion that a human being can be poisoned by DDT by absorbing it through the skin has been blasted in experiments of two Navy doctors at Camp Lejeune, North Carolina Marine Corps base.

Exhaustive tests were made on insect control personnel who had been in direct contact with DDT solutions and dusts for periods from six months to five years.

"There were no signs or symptoms of illness attributable to DDT in any of the subjects," Lieut. Comdr. William J. Perry and Lieut. Leonard J. Bodenlas of the Naval Medical Field Research Laboratory report in MOSQUITO NEWS (March), journal of the American Mosquito Control Association.

Alarming statements last year that exposure to DDT might be a cause of virus X and other body disturbances were not substantiated by scientific evidence, they charge.

If DDT is taken by mouth, its presence can be determined in fats of the human or animal body, where it accumulates.

The Navy researchers examined body tissue from military personnel and laborers on three Marine Corps bases whose chief occupation was handling large quantities of DDT. They ran chemical tests of body fluids and excreta. In no case did they find a trace of DDT accumulation from exposure to the insecticide.

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MEDICINE

Chemical Guards Against Cancer Danger from Sun

➤ DISCOVERY of a chemical that has the possibility of protecting the skin against the cancer-inducing action of sunlight as well as against sunburn is announced in Chicago.

The chemical is PABA, short for para-aminobenzoic acid, one of the B vitamins which was used to treat scrub typhus during the early days of the war.

Applied in a cream base, PABA protects the skin very effectively against the redness induced by sunlight, says the American Cancer Society's report of work it supports at the University of Chicago under the direction of Dr. Stephen Rotham.

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