

War II under the late I. V. Kurchatov, father of the Soviet H-bomb. He won the Order of Lenin and the Stalin prize in 1948.

In 1950 Sakharov, with Igor E. Tamm, who won the Nobel prize for elucidation of the theory of the Cerenkov effect, proposed a model for controlled nuclear fusion reactions that helped set the direction of most of the current research in this field. The model outlined how a magnetic field could be used to confine a plasma of bare nuclei and electrons, brought to the kindling temperature for nuclear fusion of above 100 million degrees Kelvin. Similar proposals were made by scientists in other countries and to date magnetic-confinement seems the most effective way to meet the principal problem in controlled nuclear fusion: how to prevent the charged particles of the plasma from striking the walls of a solid-state container.

In a 1958 paper in the Soviet *Journal of Atomic Energy* Sakharov estimated the amount of genetic damage resulting from "nuclear tests already performed" and said that "continued testing . . . cannot be reconciled with humanity or international law."

In a recent paper, Sakharov describes several systems he has designed for using explosives to raise a magnetic field to megagauss intensity. C. W. Fowler of the Lawrence Radiation Laboratory at Los Alamos, New Mexico, published a similar method in 1960. Other teams in this country and in Italy are trying to apply the method to plasma confinement. Sakharov believes the explosive method for reaching megagauss magnetic fields may ultimately be applied to particle accelerators, producing acceleration up to 100 Bev (the Weston accelerator now being built reaches 200 Bev).

Sakharov's nonappearance abroad may be due as much to his extraordinary scientific value (he was, for example, elected to the Soviet Academy of Sciences at age 32, without having gone through the route of "corresponding member," a rank at which his senior colleague, Tamm, stayed for 20 years) as to his political maverickism, although there is plenty of that. He vigorously opposed the genetic theories publicized by Lysenko. With other Soviet physicists, he petitioned Party chief Leonid I. Brezhnev to oppose a rumored restoration of Stalin's status.

Later he joined in a petition opposing a new law making unauthorized demonstrations a crime.

Sakharov's quality as a scientist gives him a privileged position shared by few others, even in the elite intellectual community, and makes his plain speaking possible. Many governments, including our own, have found it not possible to limit the wide-ranging mind of the theoretical physicist.

Do these top minds speak also for the majority of scientists in the two countries? Says Doty, who knows both: "Some share the world view but perhaps the majority still put their interest and actions into short-range or tactical problems."—LOUISE CAMPBELL\*

## APPOINTMENTS



D. A. Jones



J. W. Mehl

**Don A. Jones**, associate administrator of Environmental Science Service Administration, Department of Commerce, to director of the Coast and Geodetic Survey of ESSA. . . . **John W. Mehl**, chairman of the department of biochemistry, University of Southern California, to deputy director of the division of biological and medical sciences, National Science Foundation. . . . **Vincent M. Barnett**, president of Colgate University, to professor of political science at Williams College. . . . **Robert M. Grainger**, head of the dental clinic at the University of British Columbia, to associate director for extramural programs at the National Institute of Dental Research, NIH. . . . **Leslie R. Shepherd**, deputy chief executive of European Nuclear Energy's High Temperature Reactor Project Dragon, to chief executive of the project. . . . **James H. Zumberge**, president of Grand Valley State College, to director of the school of earth sciences, University of Arizona. . . . **Vernon E. Wilson**, executive director of health affairs, University of Missouri, to vice president for academic affairs at the university. . . . **Bruce Cork**, physicist in the Lawrence Radiation Laboratory, University of

California, Berkeley, to associate laboratory director for high-energy physics at Argonne National Laboratory. . . . **Oleg Jardetzky**, director of the department of biophysics and pharmacology, Merck Sharp & Dohme Research Laboratories, to deputy director, Medical Research Council unit of molecular pharmacology, University of Cambridge. . . . **Thomas M. Durant**, chairman of the department of medicine, Albert Einstein Medical Center, to chairman of the Drug Research Board, National Research Council. . . . **Edward C. Moore**, dean of the graduate school and coordinator of research, University of Massachusetts, to the new position of vice president for graduate studies and research, State University of New York at Binghamton. . . . **James L. McGaugh**, acting dean of the school of biological sciences, University of California, Irvine, to dean of the school. . . . **James E. Martin**, head of agricultural economics, Virginia Polytechnic Institute, to dean of the College of Agriculture at the university. . . . **Gerald T. Perkoff**, professor of internal medicine at Washington University, to director of the newly created division of health care research at the university. . . . **Bertram M. Gross**, professor of political science, and director of the National Planning Studies Program at the Maxwell Graduate School, Syracuse University, and consultant to the Secretary of HEW, to director of the Center for Urban Studies of Wayne State University. . . . **Kenneth J. McCallum**, head of the department of chemistry and chemical engineering, University of Saskatchewan, to president of The Chemical Institute of Canada. . . . **Elliott C. Lasser**, chairman of the department of radiology, University of Pittsburgh School of Medicine, to chairman of the department of radiology at the School of Medicine, University of California, San Diego.

*Erratum:* The Department of Defense letter cited in "Senate aims blow at colleges that bar recruiters" (21 June 1968, p. 1320) was in error in its list of colleges that bar military recruiters from their campuses. Several of the colleges listed—including Rutgers and Fordham—do not bar recruiters, and at present only Oberlin has such a policy.

*Erratum:* The last sentence of "APS to stay aloof from politics" (26 July, p. 340) should read "A strong supporter was . . . Jay Orear" rather than "A strong opponent. . . ."

*Erratum:* In the report "Induction and survival of hemoglobin-less and erythrocyte-less tadpoles and young bullfrogs" by G. Flores and E. Frieden [159, 101 (1968)], sentences 4 and 5, paragraph 1, column 3, page 102, should read "Air-saturated water is 0.25 mM in oxygen in the same temperature range, or 5.5  $\mu$ l O<sub>2</sub>/ml. Thus, if tadpole fluids equilibrate with air within 0.1 hour, minimal amounts of oxygen should be available for normal respiration."

\* Mrs. Campbell is a former staff member of the AAAS.