Chu and Giles is the nucleolus organizer, it may exist as an undetected second arm in one of the telocentric chromosomes of *Cebus* and of *Callicebus*.

The mechanism of chromosome evolution suggested for the Cebidae does not apply in any obvious way to the Cercopithecidae. If centric fusions have any importance in the latter family, the evidence has been obscured by further specialization of the karyotypes through such mechanisms as pericentric inversion. It is significant, however, that while the genera *Papio* and *Cercocebus* do not appear to have any telocentric chromosomes, there are three pairs of telocentrics in *Cercopithecus mona mona* (see Table 1). If the $2n = 60$ species of *Cercopithecus* have no telocentrics, as appears to be the case from the photograph of Chu and Giles (*3*), then the number difference in this genus may well be explained by the centric fusion mechanism.

Although the studies of the chromosomes of the Primates which have been made to date have only scratched the surface, so to speak, it is already obvious that such studies can be of great help in the analysis of the problem of the evolution of this group. Studies are now in progress in our laboratory on the chromosome numbers and karyotypes of a second family of the Platyrrhina, the Callithricidae. Preliminary work is also in progress on the rather puzzling genus *Callimico*. It is hoped that these studies will both clear up the question of the taxonomic position of *Callimico* and answer the question of whether the Callithricidae are truly primitive primates or have evolved their seemingly primitive characters secondarily.

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News of Science

Survey of Physics Teaching

A nationwide survey by the American Institute of Physics discloses a shortage of physics teachers in United States colleges and universities, overloaded teaching schedules, and a discouraging outlook for the immediate future. One result of the survey was the revelation that college and university administrators in the academic year 1957–58 provided sufficient funds for 403 new appointments of Ph.D. physicists, but the departments concerned estimated they would be able to appoint only 254 new Ph.D. physicists from the available supply.

Some of the findings of the survey, which was conducted by William C. Kelly, director of education at the AIP and former University of Pittsburgh faculty member, are as follows:

1) Of the 536 American colleges and universities that have a 4-year undergraduate major program in physics, 490 —or 91 percent—took part in the survey. Some 451 institutions reported that their needs for physics teachers are not being met in some degree and that they have had to resort to various substitutes for the services of full-time qualified teaching personnel. Only 39 educational institutions report that their needs for physics teachers are now being met.

2) Almost half of the institutions replying, or 49 percent, said that their physics teachers are carrying teaching "overloads." Another 30 percent reported that graduate or undergraduate assistants are being relied upon to an "undesirable degree" in teaching. Most of these assistants have had little previous teaching experience.

3) Forty-six percent of the colleges and universities responding said that the time available to physicists for research and other scholarly activities has been "markedly reduced" as a result of heavy teaching loads. It is recognized as important for all physicists to do scholarly work—research, writing of technical articles and books, and participation in the work of scientific societies—if they are to be effective educators.

4) Class teaching situations need improvement. Twenty-one percent of the physics departments report that they have had to cancel classes because of inadequate staff, another 36 percent report an increase of class size to an "undesirable degree," and one-third state that teaching duties have been assigned to part-time, although qualified, teachers from outside the institution's physics department.

5) Departmental chairmen estimate that approximately 688 Ph.D. physicists are needed to correct the shortages in these colleges and universities. The total number of Ph.D. degrees granted in 1956–57 amounted to 444 in the U.S. More than half of the 444 did not go into teaching because they took full-time research jobs.

6) The situation in the small physics department is disturbing. Half the shortage of physics teachers occurs in physics departments with staffs of six or less people, and half of the bachelor's degrees in physics in 1957 were granted by these same physics departments.

Nuclear Propulsion

A study of the feasibility of employing controlled nuclear explosions for propulsion has been authorized by the Air Research and Development Command, it was announced on 2 July by Roy W. Johnson, director of the Advanced Research Projects Agency. The authorization is for a contract with the General Dynamics Corporation's General Atomic Division, San Diego, Calif.