# Looking for the Best . . .

# PLANNING & **PROJECT MANAGEMENT**

Look to Allergan - look to the future and join a winning team. We are forming a R&D Planning Management Group to manage RGD programs and projects. Significant growth and an environment that promotes creative thinking makes Allergan a serious choice for the future growth of your career.

We are currently seeking:

## Head of Department -Planning & Project Management

Ideal candidate will have M.D. or Ph.D. in biological science with MBA or equivalent business experience, and at least 5 years experience specifically in R&D project management in the pharmaceutical industry. Proficiency in application or PERT/CPM and related techniques and broad knowledge of the drug development process are essential as are proven management skills.

## Project Manager

Ideal candidate will have solid biological science background (Ph.D. or equivalent) and MBA or strong business experience. Familiarity with computerized project management tools (PERT/CPM, etc.) and broad knowledge of the drug development process are a plus.

Allergan offers a substantial salary and benefits package and an atmosphere that encourages both personal and professional growth — plus the sunshine and lifestyle available in Southern California. For professional consideration, please send resume to Jean Child (no phone calls please) at:

**ALLERGAN PHARMACEUTICALS** A SmithKline Beckman Co. 2525 DuPont Dr. Irvine. CA 92713 Equal Opportunity Employer M/F/H

of semiarid regions where tsetse fly eradication programs have allowed the livestock biomass to exceed the carrying capacity of the rangeland environment, and habitat alterations that have resulted from conventional ranching practices have contributed significantly to the general plight of native African wildlife resources (2, 5, 6).

The presence of the tsetse fly has frequently prevented overstocking of livestock over much of semiarid Africa and in large part has been responsible for the establishment and present existence of many of Africa's sizable savanna reserves or national parks (5). These protected areas currently play an essential role in the conservation of the world's most unique and diverse assemblage of mammalian fauna, and any proposition for the use of trypano-tolerant cattle in regions of Africa infested by the tsetse fly should be tempered by these considerations.

M. L. OLDFIELD

Division of Biological Sciences, University of Texas, Austin 78712

#### References

- J. E. Rouse, World Cattle (Univ. of Oklahoma Press, Norman, 1970), vol. 2, pp. 489-776.
   M. L. Oldfield, The Value of Conserving Gene-October (Conserving Gene-Conserving Gene-Conserving Gene-Conserving Gene-Conserving Gene-
- tic Resources (Government Printing Office, Washington, D.C., in press), chapter 3.

  O. H. Frankel and M. E. Soulé, Conservation
- and Evolution (Cambridge Univ. Press, New York, 1981), p. 261.
- FAO Study Group on the Evaluation, Utilization and Conservation of Animal Genetic Resources (Food and Agriculture Organization, Rome, 1967), pp. 5 and 7; Report of the Second Ad Hoo Study Group on Animal Genetic Resources (Food and Agriculture Organization, Rome, 1969), p. 7; Conservation of Animal Genetic Resources (Pilot Study) (Food and Agriculture Organization, Rome, 1975), pp. 10 and 43; H. Epstein, in 1st World Congress on Genetics Applied to Livestock Production (Sindicato Na-
- Applied to Livestock Production (Sindicato Nacional de Ganaderia de España, Gráficas Orbe, Madrid, 1974), vol. 2, pp. 31–32.

  M. Coe, in Conservation Biology: An Evolutionary-Ecological Perspective, M. E. Soulé and B. A. Wilcox, Eds. (Sinauer, Sunderland, Mass., 1980), pp. 273–302.

  E. D. A. Asibey, Biol. Conserv. 6, 39 (1974); ibid. 4, 43 (1977); J. M. King, B. R. Heath, R. E. Hill, J. Agric. Sci. 89, 445 (1977); W. Krostitz, Unasylva 31, 32 (1979); R. H. Reul, World Anim. Rev. 32, 18 (1979). Anim. Rev. 32, 18 (1979).

### **Small RNA**

In the interest of historical accuracy, I would point out that the first well-defined function for a small RNA was described by Sidney Altman (1) long enough ago that the detection of the role of a small RNA in secretion, regardless of its biological importance, is hardly the first perceived function, as suggested in Roger Lewin's recent remarks (Research News, 19 Nov., p. 777).

Altman and his collaborators have shown (i) that the separate components are inactive but can be reconstituted (2) and (ii) that mutations in the RNA sequence affect its function in vivo (3). In addition, Altman and his colleagues have fully sequenced the gene and have shown that it contains a five-nucleotide sequence in the bend of a hairpin complementary to the invariant nucleotides of the TψCG loop of all Escherichia coli transfer RNA's.

LEONARD S. LERMAN Department of Biological Sciences, State University of New York, Albany 12222

#### References

- B. C. Stark, R. Kole, E. J. Bowman, S. Altman, *Proc. Natl. Acad. Sci. U.S.A.* 75, 3717 (1978).
   R. Kole and S. Altman, *ibid.* 76, 3795 (1979).
   R. Kole, M. F. Baer, B. C. Stark, S. Altman, *Cell* 19, 881 (1980).
- R. E. Reed, M. F. Baer, C. Guevier-Takada, H. Donis-Keller, S. Altman, ibid. 30, 627 (1982).

### **Natural Gas Exploration**

In his editorial "Methane: A motor fuel" (12 Nov., p. 641), Philip H. Abelson states that methane can be obtained from biomass and from coal, that the American Gas Association is confident that much more natural gas will be discovered and produced, and "Thus, the nation has an answer to a prolonged attenuation of oil imports.'

The maximum probable rate of methane production from biomass and coal in the next several decades is a small fraction of the approximately 20 trillion cubic feet per year that our nation currently consumes.

The American Gas Association for decades has expressed confidence that much more natural gas will be discovered, but such confidence has not prevented a 25 percent decrease in our nation's proved reserves of natural gas during the last 10 years, in spite of tremendous growth in rates of exploration for it. Drilling records reveal that the amount of gas discovered per million feet of exploratory drilling has continued to decline for 25 years. Is the American Gas Association telling us that we have saved our best prospects to drill last of all?

Geology, well drilling records, and oil and gas field discovery and production histories suggest that the probability of long-term increase in U.S. production of natural gas is very similar to that for oil.

CRAIG BOND HATFIELD Department of Geology, University of Toledo, Toledo, Ohio 43606

Erratum. The illustration that accompanied the review by C. C. Albritton, Jr., of W. H. Goetzmann and K. Sloan's Looking Far North (Viking, New York, 1982) in the issue of 10 December, page 1109, should have been credited to the Bancroft Library, University of California, Berkeley, as well as to the book under review