

## Quizzing the expert: Samuel L. Katz on immunization

exceedingly high incidence of encephalitis or encephalopathy after getting primary smallpox vaccinations at age 18 or 19. The Dutch then switched to the W.H.O. strain of vaccine, and these complications fell off dramatically. Apparently, the strain of vaccine virus used before by the Dutch had neurotropic characteristics not present in the strains used by most other nations.

There's one question on smallpox that I get at least one letter a week about: People ask me if some nation couldn't capitalize on the discontinuation of routine vaccination by using smallpox as a biological warfare weapon. Well, I feel that if someone wants to destroy the world, smallpox virus isn't the weapon he'll pick. □

REFERENCES 1 Hsiung GD: Latent virus infections in primate tissues with special reference to simian viruses. *Bacteriol Rev* 32:185-205, 1968. 2 Hardy GE Jr, Hopkins CC, Linnemann CC Jr, et al: Trivalent oral poliovirus vaccine: a comparison of two infant immunization schedules. *Pediatrics* 45:444-448, 1970. 3 Plotkin SA, Ingalls TH, Farquhar JD, et al: Intranasally administered rubella vaccine. *Lancet* 2:934-936, 1968. 4 Starr S, Berkovich S: Effects of measles, gammaglobulin-modified measles, and vaccine measles on tuberculin test. *N Eng J Med* 270:386-391, 1964. 5 Mumps Surveillance Report, report 2, Atlanta, Ga, Center for Disease Control, US Public Health Service, 1972. 6 St Geme JW Jr, Peralta H, Farias E, et al: Experimental gestational mumps virus infection and endocardial fibroelastosis. *Pediatrics* 48:821-826, 1971. 7 Wiktor TJ: *New Vaccines and the Future of Rabies Prophylaxis*, Scientific Publication 226, Washington DC, Pan American Health Organization, 1971, pp 66-72. 8 Hilleman MR: Marek's disease vaccine: its implications in biology and medicine. *Avian Dis* 16:191-199, 1972. 9 Garpure MA, Wright PF, Chanock RM: Temperature-sensitive mutants of respiratory syncytial virus. *J Virol* 3:414-421, 1969. 10 South MA: Enteropathogenic *Escherichia coli* disease: new development and perspective. *J Pediatr* 79:1-11, 1971. 11 Kempe CH, Fulginiti V, Minamitani M, et al: Smallpox vaccination of eczema patients with a strain of attenuated live vaccinia (CVI-78). *Pediatrics* 42:980-985, 1968. 12 World Health Organization Expert Committee on Smallpox Eradication, WHO Technical Report Series #493, report 2, Geneva, Switzerland, 1972.

Memo from  
JOSHUA LEDERBERG

To: Dr SL Katz  
MAR 17 1973  
Ped/Brake

See

① Has anyone made that point in print?

② Is your reply a considered one? Or that you don't think such considerations should influence over public health policy? (with which I would agree)

Wouldn't smallpox in fact make a rather reasonable harassing and/or clandestine weapon? (In a world that has seen massacres at Lod airport and a Khartoum embassy!) In fact I'm sorry you even articulated the idea in print in what might be an instinctive fashion. I've had plenty of self-doubts on the same score.

PROFESSOR JOSHUA LEDERBERG  
Department of Genetics  
School of Medicine  
Stanford University  
Stanford, California 94305