

Obnoxious equals sick?

Physicians, understandably, tend to like certain patients better than others. Evidence, however, suggests that their reactions may be more than fortuitous, and that those patients they like least are often psychologically troubled. Jean M. Goodwin of the University of New Mexico School of Medicine in Albuquerque and her colleagues have attempted to determine whether physicians' negative reactions to patients might reliably be used to diagnose psychiatric symptoms.

They studied 22 patients being treated at a clinic for systemic lupus erythematosus, because psychiatric symptoms are often seen in such patients, and because physicians often complain that such patients are particularly difficult. Four clinic physicians ranked the patients from most liked to least liked. Meanwhile, the patients were tested psychiatrically. As Goodwin and her colleagues report in the March 16 *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*, 10 of the patients were ranked among the three most disliked patients by one or more of the ranking physicians. This group proved to be those patients found to be suffering serious psychopathology. Thus, "dislike of a patient by the physician may be a clue to serious psychiatric impairment," they conclude.

Enkephalins linked to facial flushing

Small peptides in the brain, called enkephalins, have been linked with a number of provocative effects — pain relief, pleasure, learning enhancement, reduction in memory loss, epileptic seizures (SN: 11/25/78, p. 381). Now they are being associated with another unexpected effect as well — facial flushing after the imbibing of alcohol.

Intense facial flushing from drinking alcohol is known to have a genetic basis and is especially prominent in persons with a family history of non-insulin-dependent diabetes. R.D.G. Leslje of King's College Hospital in London and co-workers now report, in the Feb. 17 *LANCET*, that such facial flushing can be reproduced with injections of an enkephalin analog. Also, the effects of facial flushing can be blocked by giving the enkephalin antagonist naloxone. So facial flushing that occurs when one is drinking may be due to an exceptional, probably inherited, sensitivity to enkephalins.

Although the connection between facial flushing and non-insulin-dependent diabetes is unclear, an exceptional, inherited sensitivity to enkephalins might cause the latter as well, the researchers feel. One of the reasons for this is that the enkephalin analog they used in their study has been shown to increase blood glucose (a symptom of diabetes) in both diabetics and nondiabetics.

Genetic marker for rheumatic fever

Epidemiological and family studies have suggested that genetic factors determine susceptibility to rheumatic fever following infection with streptococcal bacteria. Now a genetic marker — specifically an immunogenetic marker — for such susceptibility appears to have been found, according to a report in the March 8 *NATURE* by Manuel E. Patarroyo of the National University of Colombia, in Bogota, and his colleagues.

Rheumatic fever patients are much more likely than are healthy persons to have a novel antigen (protein) in their bodies, Patarroyo and his co-workers have found. This antigen is secreted by a major class of immune cells in the body known as B cells. The association of this antigen with rheumatic fever, the researchers conclude, "provides direct support for the concept that an immunogenetic factor is relevant to the development of rheumatoid fever after streptococcal infection."

Smile for the dolphins, Nessie!

Camera-toting dolphins are the latest recruits to the search for the legendary Loch Ness monster. During the winter in Florida two dolphins have been practicing carrying strobe lights and cameras while tracking sea turtles, sharks and other large, **SWIMMING ANIMALS**. Perhaps they will do better at photographing Nessie than have the boat-suspended cameras, which have provided a few tantalizing, but dark and blurred pictures (SN: 4/17/76, p. 247).

Using dolphins in fresh water at the relatively low temperatures of the Scottish lake is not unreasonable, according to Robert H. Rines, the Boston patent attorney who leads the Loch Ness expeditions (that are sponsored by the private Academy of Applied Sciences in Boston). He says that the dolphins have already spent at least 20 continuous hours in fresh water during training and soon will begin a period of acclimation to colder temperatures. At Loch Ness, Rines plans to keep the dolphins in saltwater tanks and release them into the lake just a few hours each day. He says he has been assured by the navy and others who experiment with dolphins that the operation as planned will not strain or endanger the dolphins.

Sheep who prefer goats

Animals that live in groups develop affinities for members of their own species. Studies of birds have indicated that the preferences form early in life and remain fixed despite later experience. However, researchers at the University of California at Davis find that social affinities of domestic sheep and goats remain more flexible, even during adulthood.

Edward O. Price and Kim A. Tomlinson isolated pairs of male lambs and kids in wooden enclosures for the first eight months of life. The animals were then observed in a pasture containing a fenced herd of male goats and a fenced herd of rams. The test animals that had been reared with a different-species enclosure-mate spent more of their time near the different-species herd than did animals reared with a same-species companion. After those tests, the animals were segregated for a few months into single-species herds. In retests, the animals exposed early to the other species demonstrated a stronger preference than in the previous tests for their own species. Thus, later exposure can reverse a relatively long-standing social preference.

In overall popularity, the researchers noted, the goats win the contest hooves down. The sheep herd was so inactive that even a few of the sheep reared only with sheep showed a preference for the more exciting, if unfamiliar, goat herd.

No-cry method yields tears for study

Weeping crocodile tears is no longer necessary for the collection of a tear sample. Jeffrey P. Gilbard and R. Linsy Farris of Columbia University have developed a test that measures tiny samples of spontaneous eye secretions. They use a fine-tipped pipette to collect tear fluid without anesthetizing the patient or irritating the eye. To avoid sample evaporation, the fluid is sandwiched between two layers of oil in a second tube. The concentration of salts in the solution can then be measured with an osmometer, which determines the solution's freezing point.

Tear tests may become as important to ophthalmologists as blood tests are to internists, according to Farris. An accurate test practical for office, rather than laboratory, use is now being developed. The researchers have already discovered that high salt concentration in tears is characteristic of one disease — keratoconjunctivitis sicca or "dry eye" — and probably causes the gritty sensation in patients' eyes. New low-salt solutions are being formulated for treatment of that disease.