Lighter
ELEMENTS

A New Sandwich Assay

Although jelly has been a popular food product for years, little is known about its molecular structure. To address this problem, Gregory Crowther, a researcher at the University of Washington in Seattle, recently attempted the preliminary characterization of the jelly molecule using a technique that he developed called jelly electrophoresis. He published his findings in the July/August 2002 issue of the *Annals of Improbable Research*.

Akin to gel electrophoresis in which molecules are separated through an acrylamide matrix on the basis of size and charge, in Crowther's technique, jelly molecules are separated through a porous matrix that is generally considered to be edible. Crowther placed three samples—water, jelly, and turkey—in three lines atop a slice of multigrain bread and allowed them to migrate vertically through the bread for 20 min while he ate lunch.

Crowther used the water and turkey as molecular weight markers—water has a molecular weight of 18 Da, while turkey is predominantly a mixture of actin (42 kDa) and myosin (520 kDa). He then compared the distance to which the three samples migrated into the matrix and, using a standard curve created from the known molecular weights, extrapolated the mass of the jelly molecules. From its migration distance of 0.2 cm, Crowther calculated that the jelly molecule has a mass of 90 kDa.

The jelly molecule was larger than Crowther expected, and its migration behavior suggested that it could pass all the way through a standard 1.5-cm-thick slice of bread in just 2.5 h. This concern prompted Crowther to suggest a "crustless sandwich" design in which the jelly is surrounded by impenetrable layers of peanut butter.

Randall C. Willis

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Summer Reflections?

Summer, R.; et al. Cough, fever, and weight loss in a young male. *Eur. Respir. J.* **2002,** *19,* 1210–1213. *(Probably caused by holding his stomach in at the beach.)*

Sommer, S.; et al. Integrated system design for dewatering of solvents with microporous inorganic membranes. *Chemie Ingenieur Technik* **2002,** *74,* 638–639. *(AKA: Bounty, the quicker picker-upper.)*

Summer, B.; et al. Molecular analysis of T-cell clonality with concomitant specific T-cell proliferation in vitro in nickel-allergic individuals. *Allergy* **2001,** *56,* 767–770. *(Buddy, can you split a dime.)*

Sommers, J.; Vodanovich, S. J. Boredom proneness: Its relationship to psychological- and physical-health symptoms. *J. Clin. Psych.* **2000,** *56,* 149–155. *(Zzzzzzzzzz)*

Summer, C. L.; et al. Effects induced by feeding organochlorine-contaminated carp from Michigan's Saginaw Bay, Lake Huron, to laying White Leghorn hens. II. Embryotoxic and teratogenic effects. *J. Toxicol. Environ. Health* **1996,** *49,* 409–438. *(There's poison in that fish, son, I say poison.)*

Summer, K. H.; Klein, D. Determination of metallothionein in biological materials. *Methods Enzymol.* **1991,** *205,* 57–60. *(Pumping iron, or selenium, or aluminum . . .)* ◆