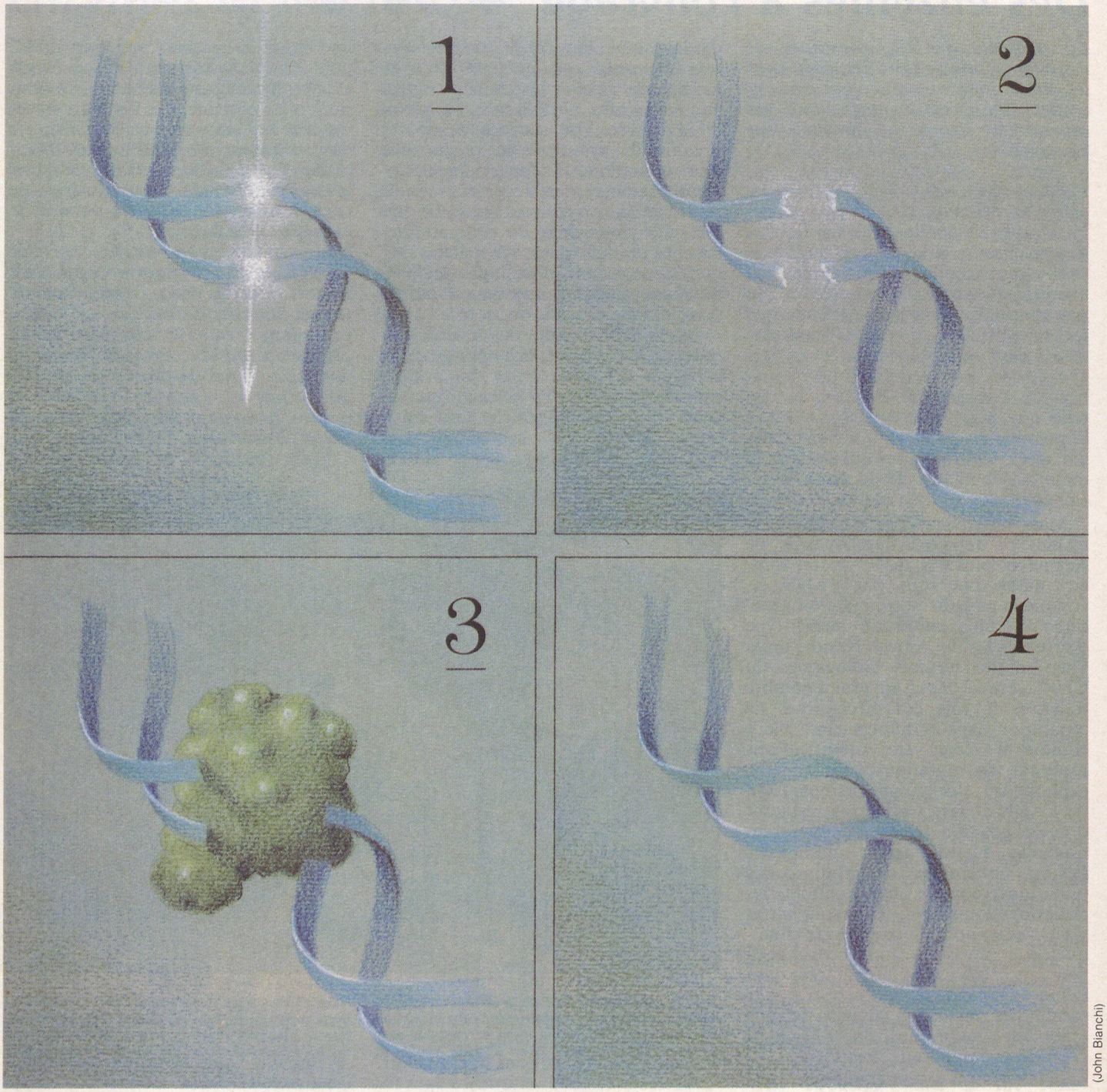
organism, Dr. Nasim's results are more relevant to humans than if, say, the organisms were bacteria. Like all multicellular life forms, yeasts belong to that group of highly developed organisms called eukaryotes, in which genetic material is organized in bodies called chromosomes and confined within a nucleus. Bacteria, on the other hand, are prokaryotes, more primitive life forms in which the DNA floats freely in the cellular fluid. Because yeasts are so well characterized, they are ideal organisms for genetic research; as well, they grow rapidly over a wide range of temperatures and are easy to cultivate, mate, and analyze. The testing is inexpensive and requires only relatively simple, inexpensive equipment.

The reason that scientists like Anwar Nasim can extrapolate the findings in their yeast experiments to humans lies in the universality of the genetic code and the general manner in which it is translated into the myriad molecules that make up the living cell. DNA, the long, double-stranded "information" molecule of life contains within its structure the genetic code; all living forms, including the bacteria, use this winding, helical molecule to carry the blueprints which are passed down, generation after generation, defining the nature of a species. The code itself is contained in the sequence of nitrogenous base molecules that make up the DNA strand (adenine, thymine, guanine, and cytosine). If UV light or

Following exposure to a mutagenic agent such as UV light (1), the DNA molecule is damaged (2). Repair enzymes (green protein molecule) restore the DNA (3) to its normal state (4).

Sous l'effet d'un agent mutagène comme le rayonnement ultraviolet (1) la molécule d'ADN est altérée (2). Les enzymes de réparation (molécules protéiques colorées en vert) rendent à l'ADN (3) sa structure originale (4).



(John Bianchi)