



## **DNA, RNA and protein formation**

### *DNA Replication*

#### **Commentary:**

A double strand of DNA unwinds and the strands separate. For each unwound strand the bases can now match with those that are floating free in the cell. The familiar base pairing rules apply. A pairs with T, G with C, and so on. So each strand of the double helix acts as a template for the formation of a new complementary strand. This eventually gives two DNA double helices, each identical to the original, and actually containing one old strand, and one new.

#### **Norman Cohen:**

Replication is a pretty accurate process but very occasionally a mistake does occur, a wrong base is put in. But even then cells contain proof reading mechanisms that can detect the mistake and correct it. And the net result in some cells is that as few as one mistake in a billion or so bases creeps through. Now I reckon that's probably equivalent to about one printer's error in a thousand average sized novels or so. That's pretty remarkable. Well, that's how replication occurs, how the information in DNA is copied, but where is the information?