Application of Diagnostic Techniques to Endocrinology

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Ernest O. Lawrence (1901-1958) in 1929 invented the cyclotron (Figure 1), used for the creation of radioactive isotopes.

After 1950, the panorama of diagnostic tools were greatly implemented by the discovery of doppler ultrasounds, magnetic resonance and computed tomography (Figure 2), and, finally, of the DNA structure (Figure 3) and monoclonal antibodies by Cesar Milstein (1927-2002) (Figure 4).

The application of all these new techniques has enormously improved the ability to detect and follow up hundreds of pathology, even in the endocrinological field. In particular, the iodide radioactive isotopes represents a centerpiece in the diagnosis and therapy of some thyroid diseases, and nuclear medicine diagnostic techniques are very useful in the detection and differential diagnosis of endocrine organs’ masses.