

Theranostics: A Neologism That Generates Schism—The Hellenic Thesis

TO THE EDITOR: *Kyrie* [sir]: Not as euphonic as *theranostics*, the term *theragnostics*, from the Hellenic *therapevein* [therapy] and “diagnosis,” harmonizes well with “gnosis” and “prognosis” (1). The **glossologic chasm** that can be **synthesized** by the *chresis* [use] of the symbol “g” has been **emphasized** by a **giant** of Hellenic **orthography** and **etymology**, the **academic** Georgios Babinotis: in theranostics, “nostics” refers more to the **pathology** than to **diagnostics**. **Glossologically**, the **ideal** is a **synergy** of the 2 words: “therapo-gnostics” (2).

In an **epoch** characterized by a **plethora** of **polymorphous** diagnostic and **therapeutic methods**, theragnostics becomes the base of modern clinical practice. However, the **history** of theragnostics—as the mastery of the **synthesis** of personalized **biologic characteristics** to **generate** the required diagnostic **icons** with the **dynamics** to **practice analogous therapies**—is not new. It had its **genesis** in the 1940s with **radioiodine** in **diagnostic** and **therapeutic thyroidology**. In November 1936, Karl Compton, president of the Massachusetts Institute of **Technology**, was asked to give a presentation at the Medical **School** of Harvard. His **theme** was, “What **Physics** Can Do for **Biology** and Medicine.” Saul Hertz, who was there, asked whether it was **technically** possible to make **iodine** radioactive. The **dialogue** and the **epistles** between them set the **base** not only for the **diagnosis** and **therapy** of **thyroid pathologies** but also for the **epoch** of theragnostics (3).

Since then, radioactive iodine has been used for the **scopes** of **pretherapeutic dosimetry**; for the therapy of thyroid **pathologies**, including **hyperthyroidism** and **carcinoma**; and for **posttherapeutic diagnosis** and its **characteristics**, **personalized**. In this **sphere**, the **parallel acme** of a **plethora** of **radiopharmaceuticals** and **diagnostic methods** has **generated** a **gigantic** number of theragnostic **radioisotopes** and **techniques**. We will **emphasize** only some **paradigms** of the numerous radioisotope theragnostic practices.

Radiolabeled **somatostatin** receptor **analogs** such as ^{111}In -octreotide, DOTATOC and DOTATATE labeled with ^{177}Lu or ^{90}Y , and PET isotopes such as ^{68}Ga -DOTATOC/DOTATATE are critical in **neuroendocrine neoplasia** (NEN) for staging the disease, **planning** its therapy, and monitoring the patient during and after therapy. **Peptide** receptor **radionuclide** therapy, the **systemic** therapy in advanced metastatic NEN, has altered **oncologic** clinical practice in **gastroenteropancreatic** NENs (2).

Radiopharmaceuticals that are synthesized by radiolabeling of **prostate-specific membrane antigens** (PSMA), such as ^{68}Ga -

PSMA-HBED-CC, ^{177}Lu / ^{90}Y -J591, ^{123}I -MIP-1072, ^{131}I -MIP-1095, ^{68}Ga / ^{177}Lu -PSMA-I&T, and DKFZ-PSMA-617, are **basic** to the personalized **diagnosis** and **therapy** of prostate carcinoma (4).

Our scope is not to **analyze** all the **bibliographic** and **clinically practiced** nuclear theragnostic **techniques** and radiopharmaceuticals. Our *epithymia* [longing] is to **dynamitize** the **dialogue** among **epistemologists**, **academicians**, **physicians**, and **physicists** in order to increasingly **synchronize** and **harmonize** our theragnostic techniques.

Instead of an **epilogue**, we would like to **apologize** for **tyrannizing** you with the Hellenic **phraseology** in our **epistle** and **emphasize** our *eucharistia* [gratitude] to the *philoxenos* [hospitable] *JNM*. The many paragraphs in this epistle were synthesized with the *orthē chresis* [correct use] of a **plethora** of Hellenic lexes. The first to **practice** the **rhetoric** of using a Hellenic **lexicon** was the academic Xenophon Zolotas back in 1957, who presented to the International Monetary Fund a lecture using only Greek words, with *exeresis* [exceptions] for articles and prepositions (5). We advise the readers to use a Hellenic lexicon as all English words in bold have a Hellenic origin.

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