Boron neutron capture therapy (BNCT) is based on the nuclear capture and fission reactions that occur when nonradioactive boron-10 is irradiated with neutrons of the appropriate energy to yield high energy alpha particles and recoiling lithium-7 nuclei. Since these particles have pathlengths of approximately one cell diameter, their lethality is primarily limited to boron containing cells. BNCT, therefore, can be regarded as both a biologically and a physically targeted type of radiation therapy. The recent developments in the field of Neutron Capture Therapy (NCT), including accelerator-based neutron sources and new boron and gadolinium delivery agents, warranted organization of the NCT WG. The NCT WG includes physicians, medical physicists, and preclinical scientists from academia, industry, and the government.

Goals

1. To inform the NCI Extramural Program about the current status of the field and brainstorm about translational research and potential clinical trials.

2. To ignite interest in NCT, build momentum, facilitate the informal exchange of ideas and resources, and facilitate establishment of NCT research and clinical facilities in the US.

Current Chairpersons

- Jacek Capala, PhD, (NCI, jacek.capala@nih.gov)
Teleconference Schedule

☐ The NCT meets virtually via the WebEx platform once a quarter – every 1st Tuesday in February, May, August & November at 10am ET.

☐ The group membership is approximately 50.

Activities and accomplishments

☐ Major Accomplishments include exchange of significant information and resources.

Interested in becoming a member of the NCT Interest Group?

☐ Please Contact the Interest Group Coordinator:

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