

# The IMSA Great Minds Program®

Dr. George Zweig is the founder and president of Sognition, Inc., located in Los Alamos. His autobiographical talk will include his interdisciplinary study and applications of mathematics, physics, technology and neurobiology.

- PhD thesis advisor at CalTech was Dr. Richard Feynman
- Worked in particle physics and was one of the discoverers of the quarks while a Post Doctoral Fellow at CERN in Geneva, Switzerland
- Joined the Jason Division at the Institute of Defense Analysis in 1965 and worked on defense projects: the triggering of earthquakes from underground nuclear explosions; the process by which the President communicates with his nuclear forces; the creation of an instrumented barrier called McNamera's Wall or Operation Igloo White, the Vietnam War's most classified project
- Discovered the continuous wavelet transform by analyzing measurements of the motion of membranes in the squirrel monkey cochlea
- Worked with Dr. House in developing the first multi-electrode cochlear implant to give the profoundly deaf the sensation of sound
- Developed SigniScope algorithmic software, containing ½ million lines of code, to study the processes of hearing and signal processing
- Designed a music synthesizer together with 3 undergraduate students from CalTech which created the soundtrack of StarTrek the Movie
- Awarded a MacArthur Prize Fellowship for his accomplishments in physics and neurobiology
- Joined the Research Laboratory of Electronics at MIT as a Visiting Scientist

[Additional Biographical Information](#)