Mid-IR absorption for many applications is well known and a wide range of molecules of interest are driving the need for commercially available, broadly tunable quantum cascade laser (QCL) technology. Advancement in chip fabrication has led to increasingly broader tuning ranges of modern QCL sources in a compact form fit factor. Increases in output power and narrower line widths are meeting the ever challenging needs of high resolution spectroscopic applications in the laboratory. A survey of applications which benefit from a photon rich source, eye safe operation and improved signal to noise ratio over common FTIR techniques includes: chemical identification, gas analysis, material validation and countless spectroscopy techniques. Block Engineering is the manufacturer of the industry’s broadest, tunable, pulsed QCL Source and complete Spectroscopy Solutions for the academic and commercial markets. The CEO of Block Engineering will discuss these concepts in this Photonics Forum.

Dr. Petros Kotidis has been in the high-tech photonics industry for more than twenty years and has commercialized numerous optoelectronic products. He is currently the CEO of Block Engineering, a leading manufacturer of QCL and FTIR based infrared spectrometers. Prior to that, he was VP of Marketing & Business Development at Axsun, a high-tech, optical MEMS company. Earlier in his career, he led strategic mergers/acquisitions and commercialized new products at Nortel, Textron and AVCO Research Laboratory. He has a Ph.D. and M.S. in Aeronautics from MIT, a business minor from the Sloan School of Management at MIT, and a B.S. in Mechanical Engineering from the National Technical University of Athens. He has been awarded 21 patents for various optoelectronic and algorithmic inventions.