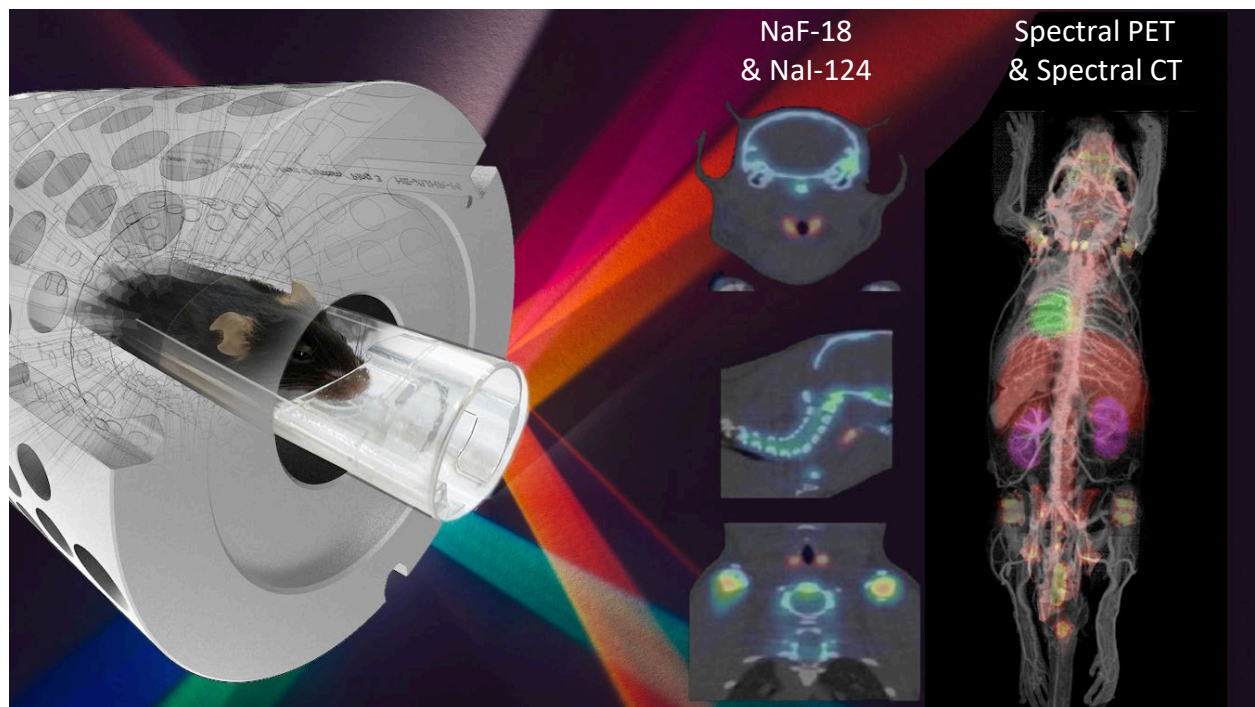


Confocal PET Causes Spectral PET Breakthrough in Preclinical Imaging

Houten, the Netherlands - March 24, 2021

Using its unique Confocal PET technology, MILabs B.V has succeeded in realizing another breakthrough in preclinical PET imaging. As published in Physics World of March 2021, MILabs' unique confocal PET technology magnifies all beneficial photons emitted from PET tracers to deliver images with a significant resolution improvement and can do so for multiple PET tracers simultaneously. This so-called Spectral PET, or Color PET, enables simultaneous detection of dual isotopes such as, e.g., $^{18}\text{F}/^{89}\text{Zr}$ and $^{124}\text{I}/^{18}\text{F}$. Moreover, unwanted photons causing noise background that coincidentally co-occur are rejected by Confocal PET, hence dramatically improving signal-to-noise contrast of the images.



Confocal PET scanning enables to image different PET tracers at different colors, hence complementing the detailed morphological info provided by Spectral CT.

In addition, as illustrated, MILabs U-PET/CT now uses Spectral PET combined with Spectral CT, hence expanding applications way beyond the capabilities of any other preclinical PET/CT systems in terms of delivering contrast-enhanced, morphological, molecular PET/CT images.

According to Prof F. Beekman, CEO/CSO of MILabs, “The applications are game-changing. With a single PET/CT acquisition, one can follow multiple molecular interactions under the same physical and physiological conditions while visualizing animal morphology with Spectral CT. Moreover, besides studying and comparing two tracers, one can evaluate the complementary role of therapies under identical conditions, with images co-registered in space and time”. This

ability dramatically facilitates translation from bench-to-clinic. “Because of the wide photon energy range of MILabs imaging approach, one can translate SPECT to PET and Targeted Anticancer Therapies (TAT) radionuclide therapy on a one-to-one basis. Add to this MILabs’ fully integrated Optical 3D tomography module, and with a single molecular imaging platform, one can genuinely cover applications from bench research to clinical trials.

About MILabs B.V.:

This fast-growing Dutch company has a history of providing a continuum of innovations to expand the applications preclinical molecular imaging. With its latest adaptive platform, MILabs has succeeded at commercializing a scalable imaging platform, able to accommodate innovative nuclear PET and SPECT techniques as well as Optical and CT imaging. MILabs has built a strong brand based on its mission of “Making Molecular Imaging Clear”. With ultra-high-resolution and multiparametric imaging complemented by theranostic capabilities, it provides efficient translational systems for both diagnostic and therapy applications. For more information, visit: www.milabs.com or contact MILabs at info@milabs.com

For further reading:

1. Physics World 5 March 2021, Tami Freeman-Editor, [Nuclear Medicine Research Update](#)
2. Physics in Medicine & Biology 2021, F J Beekman et al., [Phys. Med. Biol. 66 065011](#)