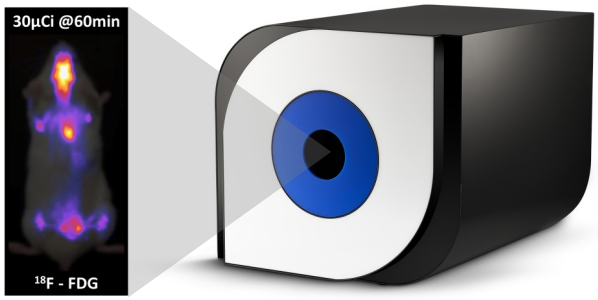
BIOEMTECH

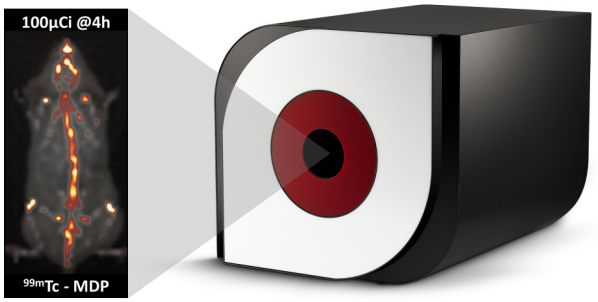
Meet us at
TERACHEM 2018
Booth #15 - Foyer II

eye-series: your eyes to *in-vivo* imaging



β-eye™

The only coincidence PET imaging system in the market!
(Planar PET)



γ-eye™

The only scintigraphic imaging system in the market!
(Planar SPECT)

Specifications

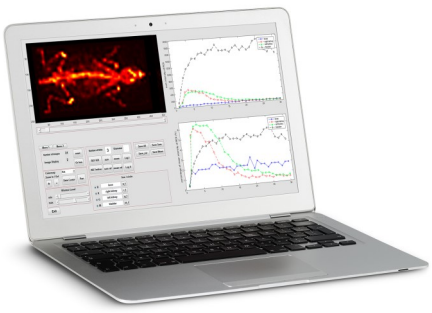
	β-eye™	γ-eye™
Useful Field of View (UFOV)	48mm x 98mm	
Maximum Sensitivity	14kcps/MBq	56cps/MBq
Spatial Resolution	1.5mm @40mm	1.7mm @0mm,
Energy Resolution	19% @511keV	19% @140keV
Detector	4 x PSPMTs	2 x PSPMTs
Scintillator	Pixelated BGO	Pixelated CsI(Na)
Dimensions	40cm(L) x 35cm(W) x 30cm(H)	
Weight	30 kg	25 kg

Whole-body mouse visual corregistration for better organ localisation

Software

Fully comprehensive, user-friendly software:

- Database archive
- Real-time imaging
- Post-processing analysis
- Reporting tool



Packaging

The system is delivered in a case including:

- Laptop with preinstalled software
- Mouse beds and connection cables
- Calibration and quality control phantoms
- Portable as standard luggage

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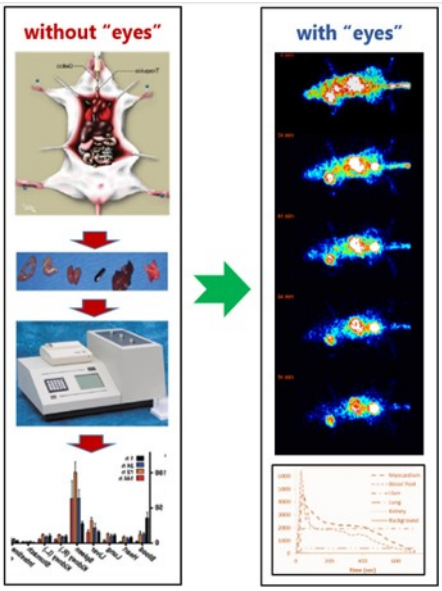
30 things you didn't know you could do with the eyes

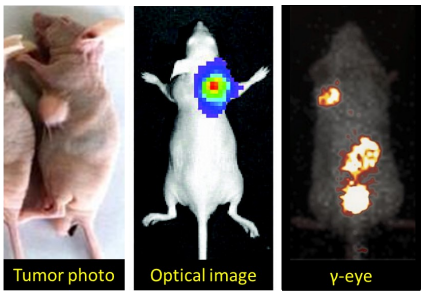
If you work with ex vivo biodistributions, using the eyes you can:



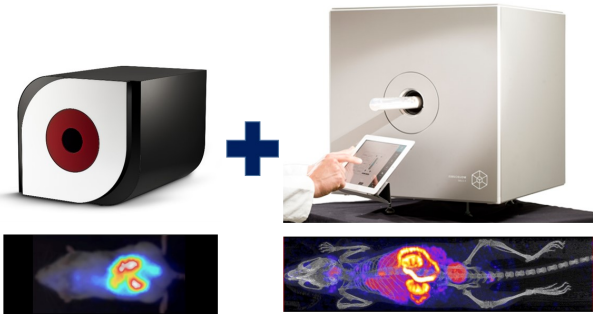
1. Obtain full dataset non-invasively, for each animal
2. Minimize the number of required animals per study
3. Significantly improve statistics and accuracy
4. Reduce cost and time for testing candidate products
5. Evaluate small variations in synthesis in vivo
6. Test different injection routes easily and fast
7. Study the effect of anesthesia protocols in a few animals
8. Assess animal preparation conditions non-invasively
9. Test and optimize different injected concentrations
10. Identify bad injections or unexpected behavior
11. Obtain a quality assurance tool for planning biodistributions
12. Comply with bio-ethical standards and the 3Rs Principle

If you work in tumor research planar with optical imaging, using the eyes can:

13. Provide images of high resolution with no penetration depth
14. Offer quantitative data for subcutaneous tumors
15. Allow pharmacokinetic analysis in major organs
16. Allow direct translation for follow up research on larger animals
17. Offer a much lower cost compared to optical imaging



If you work with multimodal systems, the eyes enable you to fully exploit them:



18. Have a screening tool for daily use in your lab
19. Optimize protocol parameters before 3D imaging
20. Define the optimal time points for 3D imaging
21. Select the best animal for 3D imaging
22. Avoid imaging animals with bad biodistribution
23. Check successful injection before 3D scan
24. Save resources when "buying" imaging time

And what surprisingly most tomographic systems do not offer, but the eyes do:

25. Continuous whole body mouse images, right from the first second post injection
26. Acquire short frames, down to 10sec for fast dynamic studies
27. Ability to image low activities, even below 10uCi
28. Image first blood pass by injecting the mouse on the camera
29. Provide animal anesthesia, with all cables inside the system
30. Possibility to image many organs ex vivo, as an alternative to biodistribution

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