# Med<sup>\*</sup>Beacon

## Accurate physiological measurements merit the most robust and precise data analytics software.

Similar to Studio 2, Studio 3 software utilizes the latest kinetic model and the complete data set from the measured excretion kinetics.

Baseline shifts observed occasionally during measurement can be adjusted in one, two and three compartment models.

Half-life  $(t_{1/2})$  conversion into GFR is automated and integrated into the database (valid for rat and mouse preclinical research).

Studio 3 allows for fully automated identification of Start, End and Offset markers for all available compartment models.

Studio 3 software offers a further enhanced and customizable data management which facilitates storage, organization, viewing and export of single transdermal data sets as well as groups of data sets. Splitting and anonymization of data sets enable the user to easily share subgroups of data.

## Advanced Studio 3 Features NEW

- Fully automated marker positioning
- Anonymization of data sets for easy sharing
- Statistical analysis using Students T-Test and F-Test

#### PRECISION

- Multiple compartment model with automatic baseline correction
- Machine learning based motion artifacts removal
- Optimized curve fitting uses Basis Function Method
  and Nonlinear Least Squares Method



### SUPERIOR USABILITY

- Automated conversion of  $t_{1/2}$  in GFR
- Customizable database columns
- Improved database filtering options
- Curve comparison in single chart
- Accelerated artifacts removal computation
- Excel<sup>®</sup>, Maltab<sup>®</sup> and pdf result report
- Supports Mac or PC
- Export of subgroups of data sets

#### NOT FOR HUMAN USE

J. Friedemann, R. Heinrich, Y. Shulhevich, M. Raedle, J. Pill, D. Schock-Kusch, "Improved kinetic model for transcutaneous measurement of glomerular filtration rate in experimental animals." Kidney International (2016) 90, 1377–1385; https://doi.org/10.1016/j.kint.2016.07.024











#### Improved Precision Demonstrated

Comparison of 46 measurements in healthy SD rats demonstrates the improved precision that is possible with the Studio 3 evaluation algorithms.

The reduced group variability that is achieved using the Studio 3 algorithms is shown to the left.

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