



TRISKELION
RESEARCH FOR BETTER LIVING

TINY-TIM GASTROINTESTINAL TESTING

ABOUT TRISKELION

TRISKELION – A TNO COMPANY – IS AN INNOVATIVE CONTRACT RESEARCH ORGANIZATION THAT PROVIDES SERVICES IN THE AREA OF FOOD AND PHARMA TO IMPROVE AND SAFEGUARD PEOPLE'S HEALTH. SINCE 1992 TNO AND TRISKELION HAVE BEEN DEVELOPING AND VALIDATING DYNAMIC, MULTI-COMPARTMENTAL, COMPUTER-CONTROLLED LABORATORY MODELS THAT SIMULATE THE GASTROINTESTINAL TRACT OF HUMANS AND SOME MONOGASTRIC ANIMALS (TIM SYSTEMS).

GASTROINTESTINAL TESTING

As a stakeholder in pharmaceutical and nutritional research and while developing orally delivered dosage forms or food stuffs, you would like to gather information about the gastrointestinal behavior of your products. This should be done in a time-efficient and cost-effective way prior to the performance of clinical studies.

In order to de-risk these expensive clinical studies in vitro models, that mimic gastrointestinal conditions with a high predictive value for the human situation, can be used,

Triskelion develops gastrointestinal models since more than 25 years, with a high predictive quality as documented in over 230 peer reviewed publications.

Most recently Triskelion designed the tiny-TIM, a dynamic in vitro gastrointestinal model, equipped

with the advanced gastric compartment connected to a small intestinal compartment. Likewise to the other members of the TIM family, its applications are broad.

PHARMACEUTICAL APPLICATIONS

- Dosage form testing on the release, dissolution and bioaccessibility of active pharmaceutical ingredients under fasted and fed-state conditions
- Bio-equivalence studies
- Drug–drug and drug–nutrient interactions
- Proof of concept studies

NUTRITIONAL APPLICATIONS

- Digestibility of single ingredients or complex meals
 - protein quality (DIAAS)
 - carbohydrates (glycemic response)
 - fats
- Bioaccessibility of micronutrients or phytochemicals
- Safety assessment studies





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Tiny-TIM system. Model unit (left), sampling unit (top right) and dispensing unit (bottom right).



Dispensing unit.



TIM Advanced Gastric Compartment (TIMagc).

TINY-TIM SYSTEM

The tiny-TIM system consists of three separate modules:

- A module that contains the gastrointestinal compartments and its control unit
- A dispensing module with syringe pumps for the accurate distribution of the digestive fluids
- A sampling module for automatic sampling of the filtrate that contains the released, digested and dissolved compounds

BENEFITS OF TINY-TIM

- Simplified use and highly reproducible versus in vivo studies
- Higher throughput (faster and more cost-efficient)
- No ethical constraints

GENERAL FEATURES

- Table-top modules
- Simple and user friendly operation
- Software controlled system operation
- Pre-defined protocols
- Low labour intensity
- High accuracy and reproducibility
- Automated, volume-controlled sampling of filtrate
- Availability of standardized consumables

ORDER INFORMATION

Article	Description
GA0120520	tiny-TIM Including installation and 2-year software license. (product comes with one year warranty and one year user group membership)
GA0120530	Initial training tiny-TIM

More options are available with respect to extra warranty and service contacts. Please ask for the possibilities.

NBS Scientific UK is the exclusive distributor of the tiny-TIM system in the United Kingdom.

For more information or questions, please contact us at:

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