

Press Release

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Application Handbook: Clinical 47 real life applications

**Overview of analytical applications resumed in 140 pages /
Available as download /
Free of charge**

Shimadzu, one of the world leaders in analytical instrumentation, has released the first Application Handbook "Clinical". It contains most advanced technologies and solutions such as chromatography, mass spectrometry, spectroscopy and life sciences instruments. With nearly 140 pages, the Application Handbook "Clinical" covers 47 real life applications related to hot subjects such as Vitamin D, steroids, immunosuppressants, catecholamines and amino acids analysis. The book is free of charge and can be downloaded (17 MB) at: www.shimadzu.eu/clinical

Analytical tools for the clinical world

In clinical applications, analytical instruments unfold a multitude of benefits:

- They support the quality of human life. The concentration of medications in Therapeutic Drug Monitoring (TDM), is assured, even though this may change according to age and health conditions and is dependent on gender, genetic constitution or interferences with other drugs.
- They help to save lives, particularly when it comes to time-critical situations, e.g. through acute intoxication, medical or drug abuse.
- They analyze over- and undersupply of vitamins, minerals and trace elements.
- They are applied in genomics, proteomics and metabolomics.
- They uncover fraud in sport, particularly in animal or human doping. At the same time, analytical systems support health protection of animals and humans, even in the long-term.

Clinical applications benefit from Shimadzu's complete portfolio covering

- chromatography and mass spectrometry (GC, GC-MS, GC-MS/MS, HPLC, UHPLC, LC-MS, LC-MS/MS)
- spectroscopy (UV-Vis, FTIR, AAS, EDX, ICP-OES)
- life sciences (MALDI-(TOF)-MS)
- microchip-electrophoresis
- biopharmaceutical (aggregate sizer)
- observation of medical microbubbles in targeted drug delivery using the HPV-X2 ultra high-speed camera.

Shimadzu breaks new grounds by rethinking the use of mature technologies to develop new unique systems such as the iMScope TRIO. It combines an optical microscope with a mass spectrometer for insights on the molecular level.

For next-generation brain science, Shimadzu provides LABNIRS, an imaging technology for visualization of brain functions by functional near-infrared spectroscopy (fNIRS).

For a quick overview of the analytical instrumentation technologies and their use in the clinical world please see the attached backgrounder document "A-ENG-16004-2".

Web summary

With almost 140 pages, the new Shimadzu Application Handbook "Clinical" combines 47 real life applications and most advanced technologies and solutions for clinical research. All major analytical instrumentation methods are covered, such as chromatography, mass spectrometry, spectroscopy and life science lab instruments. The book is free of charge and can be downloaded (17 MB) at: www.shimadzu.eu/clinical



Figure 1: 47 real life applications on 140 pages: the new Shimadzu Application Handbook “Clinical” combines real life applications and most advanced technologies and solutions for clinical research.

Web link: www.shimadzu.eu/clinical



For further editorial questions, please contact:

Uta Steeger

Shimadzu Europa GmbH

Albert-Hahn-Str. 6-10

D-47269 Duisburg

Tel.: +49 (0)203-7687410

E-Mail: us@shimadzu.eu

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