Spectrophotometric assays

Objectives:

Spectrophotometric assays allows the determination of the concentration of a substance of interest in various biological samples (urine, blood, plasma, tissue) and helps to better understand the mechanism of action of an active compound.

Summarized methodology:

A wide range of assays have been validated based on direct colorimetric reactions or immuno-enzymatic detection (EIA / ELISA).
Pelvipharm is used to collect various sample types (urine, blood, plasma, tissue), while taking special care to adopt an appropriate storage of samples and to perform pre-analytical steps (extraction when needed) before any biochemical spectrophotometric assay.
Absorbance reading is performed using a Molecular Devices microplate reader (Spectramax 190) associated to SoftMax® Pro microplate analysis software.

Endpoints:

A wide range of biochemical spectrophotometric assays have been validated at Pelvipharm, as follows:

Type of marker	Assays validated at Pelvipharm
Inflammation	TNFα IL-6
Nerve growth	NGF
Renal function	creatinine albumin
Metabolism	glycemia insulin triglycerides
Endothelial function	6-keto-prostaglandin F1α thromboxane A2 cyclic GMP endothelin nitrites/nitrates
Oxidative stress	8-isoprostanes antioxidant capacity
Remodeling	protein content DNA content hydroxyproline

NB: *Pelvipharm will gladly study the feasibility of performing additional spectrophotometric assays to meet its client's needs.*

Related Pelvipharm bibliography:

Oudot, A. et al. **J Sex Med** (2010) : 7(1)p1:79-88

Oudot, A. et al. **Physiol Res** (2009) : 58(4):499-509.

Behr-Roussel, D. et al. **Am J Hypertens** (2008) : 21(11) : 1258-1263

Behr-Roussel, D. et al. **Eur Urol** (2008) : 53(6) : 1272-1280

Behr-Roussel, D. et al. **Am J Physiol** – Regul (2005) : 288 : R276-R283

Behr-Roussel, D. et al. **Atherosclerosis** (2002) : 162 : 355-362

Links to applicable therapeutic areas / targeted disorders:

- **Sexual pharmacology**
  - * ED (Erectile Dysfunction)
  - * Ejaculatory Disorders
  - * FSD (Female Sexual Dysfunction)
- **Lower urinary tract**
  - * BPH (Benign prostatic Hyperplasia)
  - * SUI (Stress Urinary Incontinence)
  - * SCI (Spinal Cord Injury)
  - * NDO (Neurogenic Detrusor Overactivity)
  - * OAB (Overactive Bladder)
  - * IC (Interstitial Cystitis)
- **Cardiovascular and metabolism pharmacology**
  - * Hypertension
  - * Metabolic syndrome
  - * Atherosclerosis
  - * Diabetes Mellitus
  - * Myocardial infarction