

(TMR) is an innovative GLP-certified contract research organization supporting discovery, preclinical and clinical drug development (Italian Minister of Health, 2014/25). We provide quality services to pharmaceutical, biotechnology and academic clients in Italy and abroad. Our strengths are reliability, quickness and responsiveness.

**What we offer:** TMR offers a full range of toxicology safety evaluation studies for the pharmaceutical products on chemical, food and cosmetic products industries. We have experience with a wide variety of compounds from small molecules, antibodies, peptides, industrial and agro-chemicals, food additives.

TMR operates in conformity to worldwide regulatory guidelines and can be monitored for GLP compliance by our Quality Assurance Unit.



### Development and Reproductive Toxicology

TMR offers a broad range of development and reproductive toxicology services to test the safety of a specific compound and evaluate its effect on reproductive and developmental functions.

We can support your study assessing the effect of your compound on:

- Fertility in male and female
- Embryonic development (species: rat and mouse)
- Post-natal development (species: rat and mouse – including behavioral testing)



### Neurotoxicology

TMR has a long-lasting expertise in neurobiology and has evaluated the effects of several different pharmaceutical products on the nervous system.

We can apply a wide range of technologies:

- Neurobehavioral assays, including locomotor activity, coordination and gait, pain threshold, learning and memory performances
- Neurohistochemistry, including a full-range of neurotransmitters, growth factors and receptors
- Neuropathology, including structural proteins and in situ disease markers



### Histopathology and Biocompatibility

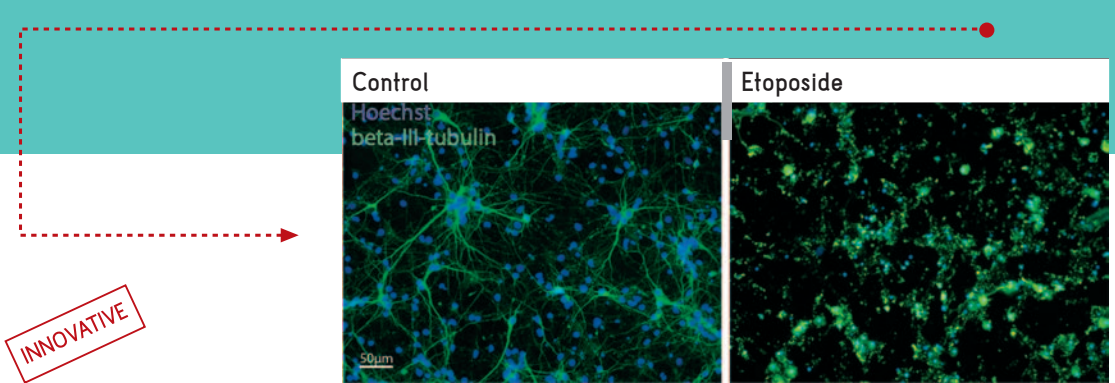
Our toxicology services include extensive microscopic evaluation of tissues and rely on a wide and experienced network of pathologists.

We can execute a variety of studies in transgenic mice and animal models:

- Tissue and slice preparation
- Immunohistochemistry
- Cytology
- Confocal microscopy
- Quantitative image analysis supported by 2D, 3D and 4D software programs

	SPECIMEN	DURATION	ADMINISTRATION	ASSAY
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IN VITRO	Neuronal cell cultures (SH-SY5Y, PC12, NT2/D1) - purchased by accredited sources (DSMZ, ATCC, ECACC)	-	In accordance to: Guidance Document on Using in Vitro Data to Estimate Starting Dose for Acute Toxicity	MTT cytotoxicity test, Neutral Red cytotoxicity test, HCS
	Neuronal cell cultures (SH-SY5Y, PC12, NT2/D1) - purchased by accredited sources (DSMZ, ATCC, ECACC)	-		MTT cytotoxicity test, Neutral Red cytotoxicity test, HCS

EX VIVO	Primary neuronal cultures - derived from wt (mouse/rat) and transgenic mouse models	-		MTT cytotoxicity test, Neutral Red cytotoxicity test, HCS
				

IN VIVO	Rodents (mouse and rat)	14 days	Oral, intranasal, intraperitoneal, intracutaneous, intramuscular	Single dose toxicity studies (acute toxicity)
		28 days	Oral, intranasal, intraperitoneal, intracutaneous, intramuscular	Repeated dose toxicity studies (sub-acute toxicity)
		90 days	Oral, intranasal, intraperitoneal, intracutaneous, intramuscular	Repeated dose toxicity studies (sub-acute toxicity)