

Implen Prof Beer's Journal Club | Feb Issue, 2026

Explore Feb 2026 Featured Research Highlights

Study of sciatic nerve proteomics



Sciatic nerve



Temporal and demographic patterns of peripheral nerve proteomes in preclinical neuropathic pain



Longitudinal characterization of proteome dynamics after sciatic nerve injury

In a recent study published in *Biomedicine & Pharmacotherapy*, a group at the University of Vienna present a

longitudinal study of sciatic nerve proteomics across age and sex to provide a framework for identifying therapeutic targets in nerve injury. The group used the Implen NanoPhotometer® N60 to measure protein concentration of sciatic nerve tissue samples, then for downstream peptide concentration measurement after digestion. The data reveal sex- and age-modulated changes after sciatic nerve injury in immune processes and metabolic pathways, as well as transcriptional remodeling, providing important insights into nerve injury-associated neuropathy.

#Implen #NanoPhotometer #Spectrophotometer #ProteinQuantification #BiomedicalResearch

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Cacao seed lipid biosynthesis



RNA
purity

qRT-PCR
analysis

Valentine's Day
choc talk ♥♥

Transcriptional profiling
reveals differentially
expressed genes
involved in lipid
biosynthesis during
cacao seed development



Investigating cacao seed lipid biosynthesis

Join us for a Valentine's Day choc talk. In an article published in Scientific Reports, lipid biosynthesis of cacao seeds—an important component of chocolate—was investigated using biochemical and transcriptomic methods. An Implen NanoPhotometer® was used to assess RNA purity for utilization in downstream qRT-PCR analysis. The results show differences in lipid accumulation rates and gene expression between high and low lipid content cacao accessions, which potentially explains overall differences in lipid content.

#Implen #NanoPhotometer #Spectrophotometer #RNAQuantification #Research

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NRF2 hyperactivation in cancer cells



NRF2 activation in cancer cells suppresses immune infiltration into the tumor microenvironment



NRF2 activation and immune cell suppression in the tumor microenvironment

A recent publication from researchers at @Tohoku University describes an investigation of the effect of NRF2 activation on immune suppression in the tumor microenvironment. The NanoPhotometer® NP80 was used to measure RNA concentration and assess RNA purity for qRT-PCR gene expression analysis and RNA-seq, respectively. The results show that in syngeneic murine cancer models, NRF2 hyperactivation suppresses immune cell infiltration into tumors, providing insights into the mechanism by which NRF2 activation contributes to cancer malignancy.

#Implen #NanoPhotometer #Spectrophotometer #RNAQuantification #LifeScienceResearch"

Learn more

Ambrosia beetles & infection spread



Spatial protective mechanisms

Spatial organization within social ambrosia beetle nests limits spread of infectious disease



Colony-level mechanisms of ambrosia beetles against spread of infectious disease

A study from the @University of Illinois Chicago describes spatial protective mechanisms utilized by beetle colonies to limit the spread of infectious disease. DNA was isolated from a single fungal colony and concentration was measured using the NanoPhotometer® NP80. The results suggest that spatial bias of diseased beetles reduces infection risk and support colony resistance. #Implen #NanoPhotometer #Spectrophotometer #DNAQuantification #BiologicalResearch

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