



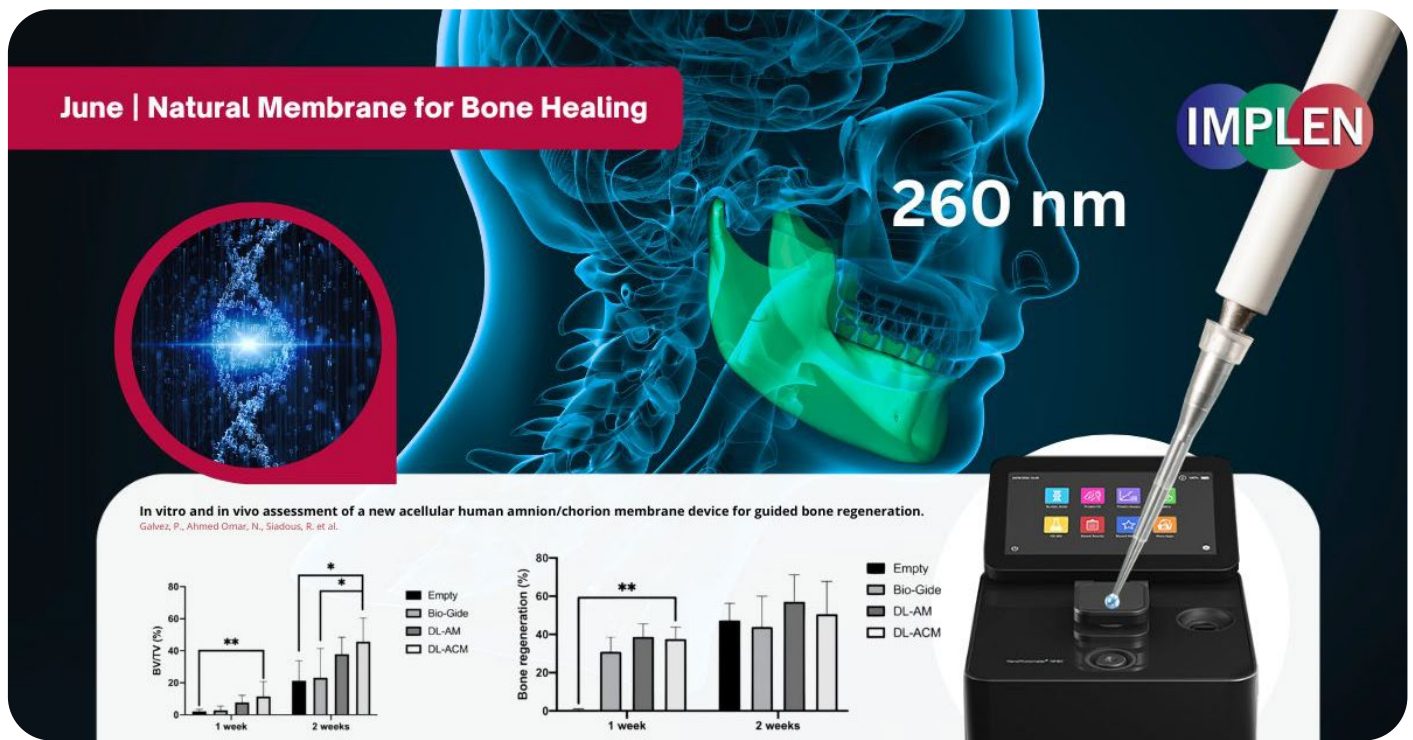
Personalized Medicine at the Push of a Button: 3D-Printed Pills Tailored for You

A recent publication in ChemRxiv demonstrated that scientists developed a 3D printing method to make hollow tablets, then filled them with tiny, precise drops of medicine using drop-on-demand inkjet printing. Each pill was tested to ensure the dose was accurate. This method provides the potential for custom medications to be made safely on the spot, giving patients exactly what they need, when they need it.

The Implen NanoPhotometer® was used in this work to collect the absorption spectra of both pharmaceutical ink formulations and manufactured tablets. The spectrophotometer enabled two pathlengths of 0.67 mm (dilution factor 15×) and 0.07 mm (dilution factor 140×). Absorption spectra were collected from 200 nm to 650 nm with nanometer resolution. The compact footprint, approximately 2.5 second analysis, and touchscreen operation provided a standalone format for rapid API ink verification.

#Implen #NanoPhotometer #UV/VIS #Spectroscopy #PersonalizedMedicine #3DPrintedPills #3DPrinting #PointOfCare #PharmaInnovation #PrecisionDosing #CustomMeds #DigitalHealth #PharmaceuticalTech #SmartPharmacy #MedTech #FutureOfMedicine

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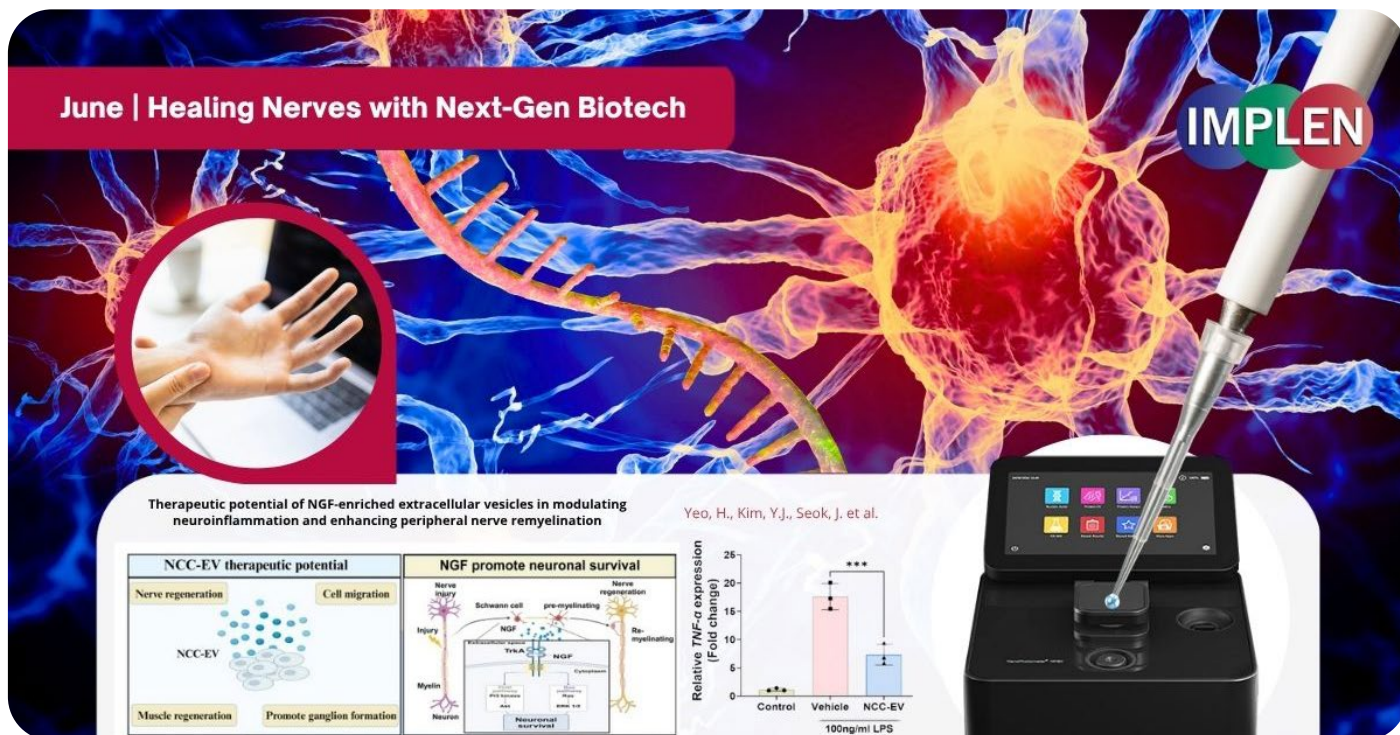
Breakthrough Natural Membrane for Bone Healing

A newly developed natural membrane is making waves in regenerative medicine. It's thicker, stronger, and easier to handle than previous materials—and it's showing great promise in helping bones heal faster, especially in dental and jaw surgeries. Backed by rigorous testing and now published in Nature's Scientific Reports, this innovation could reshape how we approach bone repair.

The Implen NanoPhotometer® was utilized in this study to quantify DNA by determining its absorbance at 260 nm.

#Implen #NanoPhotometer #UV/VIS #Spectroscopy #InnovationInHealing #BoneRegeneration #ScientificReports
#NaturePortfolio #RegenerativeMedicine #GuidedBoneRegeneration #TissueEngineering #DentalInnovation #Biomaterials
#MedTech

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Healing Nerves with Next-Gen Biotech

A new study recently published in *Acta Neuropathologica Communications* showed that extracellular vesicles (EVs) enriched with nerve growth factor (NGF) reduced inflammation, regenerated damaged nerves, and protected muscle in a model of sciatic nerve injury. These NGF-loaded EVs may offer a breakthrough therapy for peripheral nerve injury, with exciting potential to treat neuroinflammation, enhance nerve healing, and support recovery after injury.

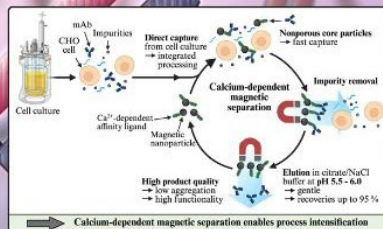
The Implen NanoPhotometer® was used in this study to quantify RNA.

#ExtracellularVesicles #NGF #Neurorepair #PeripheralNeuropathy #Neuroinflammation #Implen #NanoPhotometer #Biotech
#RegenerativeMedicine #FutureOfHealing

[Learn more](#)

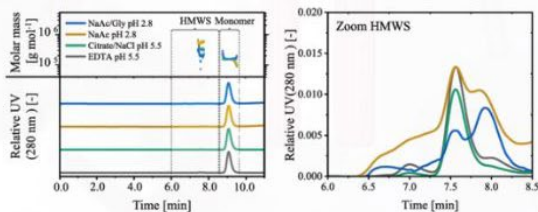
June | Fast Monoclonal Antibody Purification

IMPLEN



Calcium-dependent magnetic separation: A novel approach for the integrated processing of high-quality mAbs

Ines Zimmermann, Michaela Dölle, Oscar Friberg, Erica Atallah, Friederike Elits, Véronique Chotteau, Sophia Hober, Sonja Berensmeier



Revolutionizing Antibody Purification

A new study published in Separation and Purification Technology introduced a cleaner, faster way to purify monoclonal antibodies (mAbs) using calcium-dependent magnetic particles. This new method avoided harsh acids, combined cleanup and capture in one step, and worked directly on dense cell cultures—cutting costs, saving time, and preserving antibody quality, providing a promising leap forward for biotech manufacturing.

The Implen NanoPhotometer® was utilized in this study for photometric quantification in kinetic studies to measure the adsorption of pure Trastuzumab to MNP@GPTMS@ZnCa particles as a reference to the adsorption from cell culture. The default settings for human IgG were used.

#Implen #NanoPhotometer #UVVIS #Spectroscopy #BiotechInnovation #MonoclonalAntibodies #MagneticSeparation #CleanBioprocessing #AntibodyPurification #mAbManufacturing #DownstreamProcessing #CalciumDependent #ProteinScience #TUM #KTH #HER2 #Trastuzumab #SustainableBiotech

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