gene therapy

	NCT Number	Title	Authors	Description	Identifier	Dates
1	pubmed:36057377	Pencil-beam delivery pattern optimization increases dose rate for stereotactic FLASH proton therapy	Rodrigo José Santo Steven J M Habraken Sebastiaan Breedveld Mischa S Hoogeman	CONCLUSIONS: Significant improvements on the PBS-DR and, hence, on FLASH coverage and potential healthy-tissue sparing are obtained by sequential scan-pattern optimization. The optimizer is flexible and may be further fine-tuned, based on the exact conditions for FLASH.	pmid:36057377 doi:10.1016/j.ijrobp.2022.08.053	Sat, 03 Sep 2022 06:00:00 -0400
2	pubmed:36057605	Suppression of ACE2 SUMOylation protects against SARS-CoV-2 infection through TOLLIP-mediated selective autophagy	Shouheng Jin Xing He Ling Ma Zhen Zhuang Yiliang Wang Meng Lin Sihui Cai Lu Wei Zheyu Wang Zhiyao Zhao Yaoxing Wu Lin Sun Chunwei Li Weihong Xie Yong Zhao Zhou Songyang Ke Peng Jincun Zhao Jun Cui	In addition to investigating the virology of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), discovering the host-virus dependencies are essential to identify and design effective antiviral therapy strategy. Here, we report that the SARS-CoV-2 entry receptor, ACE2, conjugates with small ubiquitin-like modifier 3 (SUMO3) and provide evidence indicating that prevention of ACE2 SUMOylation can block SARS-CoV-2 infection. E3 SUMO ligase PIAS4 prompts the SUMOylation and stabilization...	pmid:36057605 doi:10.1038/s41467-022-32957-y	Sat, 03 Sep 2022 06:00:00 -0400
3	pubmed:36057718	A progressive and refractory case of breast cancer with Cowden syndrome	Aiko Sueta Masako Takeno Lisa Goto-Yamaguchi Mai Tomiguchi Toko Inao Mutsuko Yamamoto-Ibusuki Yutaka Yamamoto	CONCLUSION: We report an aggressive case of cancer with Cowden syndrome which was resistant to standard chemotherapy. Alteration of the phosphatidylinositol-3 kinase/Akt/mammalian target of rapamycin pathway due to inactivating PTEN protein may be associated with chemoresistance and serves as a candidate for therapeutic intervention in PTEN-related cancers.	pmid:36057718 doi:10.1186/s12957-022-02745-5	Sat, 03 Sep 2022 06:00:00 -0400
4	pubmed:36057729	Delivery and assessment of a CRISPR/nCas9-based genome editing system on in vitro models of mucopolysaccharidoses IVA assisted by magnetite-based nanoparticles	Andrés Felipe Leal Javier Cifuentes Carlos Emilio Torres Diego Suárez Valentina Quezada Saúl Camilo Gómez Juan C Cruz Luis H Reyes Angela Johana Espejo-Mojica Carlos Javier Alméciga-Díaz	Mucopolysaccharidosis IV A (MPS IVA) is a lysosomal disorder caused by mutations in the GALNS gene. Consequently, the glycosaminoglycans (GAGs) keratan sulfate and chondroitin 6-sulfate accumulate in the lysosomal lumen. Although enzyme replacement therapy has shown essential advantages for the patients, several challenges remain to overcome, such as the limited impact on the bone lesion and recovery of oxidative profile. Recently, we validated a CRISPR/nCas9-based gene therapy with promising...	pmid:36057729 doi:10.1038/s41598-022-19407-x	Sat, 03 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
5	pubmed:36057886	Human Wharton's Jelly-derived mesenchymal stem cells prevent acetaminophen-induced liver injury in a mouse model unlike human dermal fibroblasts	David S Umbaugh Rupal P Soder Nga T Nguyen Olamide Adelusi Dakota R Robarts Ben Woolbright Luqi Duan Sunil Abhyankar Buddhadeb Dawn Udayan Apte Hartmut Jaeschke Anup Ramachandran	The persistence of hepatotoxicity induced by N-acetyl-para-aminophenol (Acetaminophen or Paracetamol, abbreviated as APAP) as the most common cause of acute liver failure in the United States, despite the availability of N-acetylcysteine, illustrates the clinical relevance of additional therapeutic approaches. While human mesenchymal stem cells (MSCs) have shown protection in mouse models of liver injury, the MSCs used are generally not cleared for human use and it is unclear whether these...	pmid:36057886 doi:10.1007/s00204-022-03372-5	Sun, 04 Sep 2022 06:00:00 -0400