

Title (en)
PREPARATION AND USE OF THERAPEUTIC HYDROGELS

Title (de)
HERSTELLUNG UND VERWENDUNG VON THERAPEUTISCHEN HYDROGELEN

Title (fr)
PRÉPARATION ET UTILISATION D'HYDROGELS THÉRAPEUTIQUES

Publication
EP 4048298 A1 20220831 (EN)

Application
EP 20879268 A 20201026

Priority

- US 201962944832 P 20191206
- US 201962946300 P 20191210
- CN 202010056372 A 20200118
- US 201962925498 P 20191024
- CN 201911118116 A 20191115
- CN 201911118465 A 20191115
- CN 202010056374 A 20200118
- US 202063032729 P 20200601
- CN 202010975598 A 20200916
- CN 202010975599 A 20200916
- US 2020057431 W 20201026

Abstract (en)
[origin: WO2021081540A1] Systems and methods of preparing therapeutic materials from amniotic tissue are discussed. In some embodiments the amniotic tissues are ground and used to generate hydrogels. Variations in the materials and preparation methods result in attributes, such as preservation of protein activity and/or thickening time, that are applicable to various therapeutic uses. As an illustrative example, a hydrogel of finely ground amniotic tissue can be freeze-dried and cryoground to particle sizes suitable for use in ophthalmic, oral, or other treatments. In some embodiments, the invention includes to a highly efficient and effective cryogenic grinding process and mechanic engineering design to make fine, uniform sizes and highly dissoluble powder particles for industry large scale manufacturing. This is accomplished while maintaining the original important physical, chemical and biological characteristics of the Materials being grinded. Exemplary embodiments include grinding of amniotic tissue, proteins, collagen, mucopolysaccharide and freeze-dried tissues, for the generation of therapeutic materials.

IPC 8 full level
A61K 35/50 (2015.01); **A61L 26/00** (2006.01); **A61L 27/36** (2006.01)

CPC (source: EP)
A61K 31/00 (2013.01); **A61K 35/30** (2013.01); **A61K 35/36** (2013.01); **A61K 35/50** (2013.01); **A61K 35/644** (2013.01); **A61K 38/4893** (2013.01); **A61L 15/40** (2013.01); **A61L 26/0057** (2013.01); **A61L 26/008** (2013.01); **A61L 27/3604** (2013.01); **A61L 27/3633** (2013.01); **A61L 27/3691** (2013.01); **A61L 27/52** (2013.01); **A61L 29/005** (2013.01); **A61L 29/145** (2013.01); **A61L 31/005** (2013.01); **A61L 31/145** (2013.01); **A61P 1/02** (2017.12); **A61P 17/00** (2017.12); **A61P 17/02** (2017.12); **A61P 17/10** (2017.12); **A61P 41/00** (2017.12); **C12Y 304/24069** (2013.01)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2021081540 A1 20210429; EP 4048298 A1 20220831; EP 4048298 A4 20231122

DOCDB simple family (application)
US 2020057431 W 20201026; EP 20879268 A 20201026