

Jun 1, 2021 FunPep Co., Ltd.

Submission of Clinical Trial Plan for a Phase III Clinical Trial of Functional Peptide SR-0379 —Toward the Development of Novel Therapeutic Drugs for Pressure Ulcers and Other Skin Ulcers Common in Bedridden Elderly Patients—

Fun Pep Co., Ltd. (FunPep) announced today that it has submitted a clinical trial plan to the Pharmaceuticals and Medical Devices Agency (PMDA) for a Phase III clinical trial of functional peptide SR-0379 in skin ulcer patients in Japan. In this study, FunPep plans to verify the efficacy and safety of SR-0379 in patients with skin ulcers (pressure ulcers, diabetic ulcers, leg ulcers, etc.), and we plan to start the clinical trial as soon as the requisite inspection by the PMDA is completed.

SR-0379 is a novel functional peptide compound consisting of 20 amino acids. Its main action is to promote angiogenesis and granulation, and it also has antibacterial activity.

A skin ulcer is a condition in which the barrier function of the skin is defective, and various bacteria adhere to the wound surface. Bacterial proliferation and infection can delay wound healing, and more serious conditions can be caused by sepsis; therefore, it is important to control bacteria and infection. SR-0379 has been shown to have antibacterial activity unlike existing drugs that also have wound-healing-promoting activity. In addition, SR-0379 has a simple administration method (spray formulation that can be stored at room temperature) that is easy to use in home medical care, which is expected to become more common in the future, and is therefore expected to contribute to the treatment of a wide range of patients.

SR-0379 is a novel drug originating from academia and was created based on the research of Osaka University Graduate School of Medicine. It has been developed in an industry-academia collaboration through multiple academia-led investigator-initiated and corporate clinical trials.

Through the development of SR-0379, FunPep aims to contribute to the improvement of patients' quality of life (QOL) by promoting the early recovery of pressure ulcers and other skin ulcers, which are becoming increasingly prominent in an aging society.

◆ R&D Pipeline

< Products in Development >

Product	Indication	Region	Clinical Trial Sites	Discovery	Pre	Clinical Trials			
					clinical	Phase I	Phase II	Phase III	Licensee etc.
SR-0379	Skin Ulcers	Global	Japan	Pl	hase III Pre	eparation			Shionogi (Global license)
FPP003 (Target: IL-17A)	Psoriasis	Global	Australia	Phase I/IIa Ongoing					Sumitomo Dainippon
	Ankylosing spondylitis	Global	_	Preclinic	al				(Option for N. America)
FPP004 (Target: IgE)	Pollinosis (Seasonal allergy rhinitis)	Global	_	Preclinic	al				TBD
FPP005 (Target: IL-23)	Psoriasis	Global	_	Preclinic	al				TBD

< Research Themes >

Туре	Disease	Partners			
	Neuropsychiatric disorders	Sumitomo Dainippon (Research agreement on neuropsychiatric disorders) Shionogi (Collaborative research on pain) MEDIPAL HOLDINGS (R&D support)			
	Pain				
	High blood pressure				
Antibody-inducing	Allergies				
peptide	Thrombosis				
	Familial adenomatosis of the colon				
	Others				
Prophylactic vaccines	COVID-19	AnGes (Collaborative research)			

Skin Ulcer

Skin ulcers include pressure ulcers (so-called "bedsores"), which often occur in bedridden elderly people; diabetic ulcers, which are a complication of diabetes and are highly prevalent in the elderly; and leg ulcers, which are primarily caused by venous stasis. The treatment of skin ulcers is becoming more and more important in an aging society.

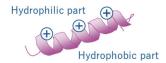
Granulation

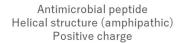
Granulation is a red, soft, granular connective tissue that forms during the healing process of skin ulcers.

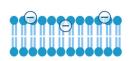
◆ Antibacterial Mechanism of Action of SR-0379

The skin and immune cells contain a group of peptides called "antimicrobial peptides," which consist of about 20 to 40 amino acids and play a role in the immune defense. Antimicrobial peptides are structurally characterized by the uneven distribution of positively charged hydrophilic and hydrophobic amino acids, which disrupts the cell membranes of bacteria and fungi to produce antimicrobial effects. Since SR-0379 has similar structural characteristics to naturally occurring antimicrobial peptides, it exhibits similar antimicrobial activity. This disrupts the cell membrane of bacteria, etc., making it difficult for resistant forms to develop.

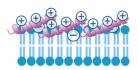
< Antibacterial Mechanism of Action of Antibacterial Peptides >







Bacterial cell membrane "Negative charge"



"Positively charged" antimicrobial peptides bind to "negatively charged" bacterial membranes and penetrate the membrane



Disruption of bacterial cell membrane