Request for Proposal RFP_2019_0201: Transfer/Release to Vascular Tissue Technology

RFP Title                      Transfer/Release to Vascular Tissue Technology
Due Date                      Dec 26
Opportunity
Timeline
Financials
RFP Description

NineSigma, representing a Japanese medical device manufacturer ("Client"), seeks technology to quickly transfer drug from balloon to vascular tissue and sustain release for a long time.

The Client desires to develop a drug-coated balloon (DCB) by combining their proprietary technology with proposed technology. The challenge is, however, to transfer the drug into the vascular tissue in a short time and retain and elute it for an extended time. Therefore, the Client wants to develop a new DCB by combining drugs and drug delivery system (DDS) technology that meet the following requirements:

Characteristics of drug to be used
- Molecular weight: approx. 1000
- Physical property: hydrophobic

The aforementioned drug is to be the first target of DCB development, but the Client intends to try several other drugs in the future.

Background

Key Success Criteria

Technological requirements
The Client seeks DDS technologies that meet the following requirements:

- Targeted vascular sites:
  1. Blood vessels in femoral-popliteal area
  2. Blood vessels below knee

- Administration method: Coat the balloon of the balloon catheter with the drug and transfer to targeted vascular sites mentioned above

[Formulation profile]
- Fast and high transferability into vascular tissue
- Transfer time: ≤3 min
- Transfer rate: Desirably, ≥80 % in the future
- Desirable to keep eluting the drug for more than 6 months after the transfer

Creation Time: Nov 28 at 05:08 AM
Area of Interest

Medical Nanotechnology
Medical Nanotechnology > Nanomedicine
Medical Nanotechnology > Medical Nanotechnology-General
Nanoscience and Nanotechnology > Molecular Nanotechnology
Health Sciences-Chemicals and Drugs > Chemicals and Drugs-General > Chemicals and Drugs-All disciplines
Pharmacology > Pharmacokinetics > Drug Absorption
Medical Nanotechnology > Medical Nanotechnology-General > Medical Nanotechnology-All disciplines

Possible Approaches

Possible approaches
The Client expects technologies such as the following approaches, but is open to others as long as the aforementioned technological requirements can be met:

- Technology that encapsulates the drug in microparticles or nanoparticles, coats the balloon with particles, and make particles be quickly absorbed into the inner lining of a blood vessel

Approaches not of Interest

Approaches Not of Interest
The following approaches are not of interest:

- Technology that keeps intravitaly irresolvable material inside a blood vessel for a long time, such as metallic stent

Preferred Collaboration Types

Joint Development
Research Collaboration
Technology Licensing
To Be Negotiated

Items to be Submitted

Notes on Response
Proposal shall have clear points and should not include confidential information. Supplemental files may be submitted in addition to the proposal.

Response evaluation
The client will evaluate all responses with the following criteria.

- Overall scientific and technical merit
- Approach to proof of concept or performance
- Economic potential of concept
- Realism of the proposed plan (action items, timeline, roles, deliverables, cost estimation)
- Potential for proprietary position
- Respondents’ capability and related experiences

Anticipated Project Process
After the submission due date, the client will review all submitted proposals. NineSigma will send the review results to each proposer 6-8 weeks after the due date. The client possibly asks clarifying questions before selecting the most suitable candidates for collaboration. The client will select best candidates through evaluations. During the selection process, the client may execute NDA with selected respondents, seek further information disclosure, and discuss specific development targets or potential opportunities. The client will execute necessary agreements with the selected respondents and move to the advanced development phase. Specifics of any collaboration will be determined through consultation with the concerned parties.

Award Amount

Attachments

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