

Executive Summary



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1. Title of the Project

Development of drug-eluting coatings for self-expandable peripheral stent for the treatment of in-stent restenosis

2. Date of Start of the Project

Date awarded: October 01, 2021.

3. Aims and Objectives

Aim: To develop self-expandable peripheral stent for the treatment of in-stent restenosis.

Objectives:

1. Development of mTOR inhibitor- biodegradable polymer coating on self -expandable peripheral stents for prolonged release.
2. Development of nanoparticles based coating on self expandable peripheral stents for release of m TOR inhibitor for over a year
3. Patenting and technology transfer

4. Significant achievements (not more than 500 words to include List of patents, publications, prototype, deployment etc.)

In Second year, we have completed

1. Optimization of nanocarriers formulation and characterization
2. Coating of the polymeric nanoparticles on the stent employing QbD paradigm

5. Concluding remarks

The project is going as per the time line The coating process parameters are optimized to achieve an efficient nanoparticle coating on the stent. A collaborative institute has been identified for *in vitro* cell line studies for executing the next milestone of the project.