Clinical *In-Vivo* Studies

Study Title: Systemic Toxicity in Mice*
Test Article: IrriSept® Wound Debridement and Cleansing System
Test Facility: NAMSA Northwood, OH
Study Number: T0626_504

CONCLUSION: There was no mortality or evidence of systemic toxicity from either portion of the test article. The test article met the test requirements.

The objective of this study was to demonstrate the safety of the IrriSept System through evaluation of systemic toxicity in mice models.

The test article, IrriSept Wound Debridement and Cleansing System, was evaluated for acute systemic toxicity in mice. A single 20 mL/kg dose of test article one, IrriSept with 0.05% CHG, was injected into a group of 5 animals by the intraperitoneal route. Similarly, a second group of 5 animals was dosed with test article two, IrriRinse with 0.9% sodium chloride USP solution. The control group was injected with 0.9% normal saline, National Formulary. The animals were observed immediately and at 4 hours after dosing and daily for 7 days. The animals were weighed prior to dosing and daily for 7 days thereafter. Weight gain and activity are considered measures of thriving and are a significant clinical observation for the study. All animals gained weight, thrived and remained clinically normal throughout the study.

*This study was conducted based on the United States Pharmacopeia, National Formulary, General Chapter 88, Biological Reactivity Tests, In Vivo and the International Organization for Standardization [ISO] 10993-11, Biological evaluation of medical devices – Part 11: Tests for systemic toxicity, but was modified to increase the observation period from 72 hours to 7 days and to dose a solution instead of an extract.

Study Title: GLP Systemic and Neurological Toxicology with Local Effects After Implantation Assessment of IrriSept® in a Chronic Rabbit Dorsal Laminectomy Model*
Test Article: IrriSept Wound Debridement and Cleansing System
Test Facility: NAMSA Northwood, OH
Study Number: 265-01

CONCLUSION: Analysis of the study endpoints in this study indicate that IrriSept is safe, with no systemic neurologic toxicity or significant local effects after implant, in a chronic rabbit model.

The objective of this study was to demonstrate the safety of the IrriSept System through evaluation of systemic and neurological toxicity and local effects after implantation in a chronic rabbit dorsal laminectomy model. This study was a randomized, controlled, (not blinded) study design. The study enrolled 14 female and 14 male New Zealand white rabbits. The animals were assigned to one of two study cohorts.

The study required evaluation using an *in vivo* model in order to properly assess the local, neurological, and systemic responses to the test article. The rabbit model was selected for this evaluation due to rabbits being an established animal species for dorsal laminectomy models and accepted for such studies by the appropriate regulatory agencies. This study is required of all new or different materials used in the spine by the FDA. Results demonstrated no neurotoxicity in the spine and brain fixed histology slides, nor in any of the ten target organs tested.

*This study was conducted in accordance with FDA regulations on Good Laboratory Practices (GLP) for Nonclinical Laboratory Studies CFR Title 21 Part 58 and the International Organization for Standardization [ISO] 10993-6, Biological evaluation of medical devices – Part 6: Tests for local effects after implantation.

Final Reports are on file and are available upon request from IrriMax Corporation.