Effects of Inert and Antistatic Polyethylene on Intraabdominal Cellularity in the Rat Abdomen

PI(s): David A. Rothenberger, M.D., John P. Delaney, M.D., Ph.D.
Researcher: Wolfgang B. Gaertner, M.S., M.D.
Department of Surgery, University of Minnesota
NNIN Facility utilized: Characterization Facility

- Scanning electron microscopy.
  - Time intervals: 30 min, 3hrs, 24hrs, and 7 days postoperative
  - Surfaces studied: inert and antistatic polyethylene (PE).

- MAJOR OBSERVATIONS
  - Antistatic PE prevented intraabdominal adhesion formation.
  - Intraabdominal platelets and fibrin were observed on the antistatic PE surface at 30 min (Fig. 1).
  - Inert PE did not prevent adhesions. Platelets and fibrin was not observed on its surface (Fig. 2).

Fig 1.

Fig 2.

- Publications
  - Pending.