Department of Chemical Engineering

University of Washington

**LEADERSHIP SEMINAR SERIES**

2:30-3:20 p.m., Wednesday, October 10, 2012

Physics Astronomy Building (PAA) Room A110

*Refreshments to follow in Benson Hall lobby.*

**“From Vascular Grafts to Solar Cells – An Adventure in Chemical Engineering”**

Chris Lyons BS ‘79

Senior Research Specialist, 3M Co.

**Abstract:**

This presentation will follow my career arc from a Chem E undergraduate at the U of Washington, to graduate research at the U of Minnesota, through 30 years of research and development at 3M Company in Minnesota. I will recount a few key experiences including research on vascular grafts with the Mayo Clinic, the development of plasma fluorination for high efficiency filters, elucidation of chemical reaction mechanisms in surface modification of polymers, and thin film deposition to enable solar cells. I will highlight how chemical engineering training enabled me to develop key skills along the way, challenges encountered, and insights from overcoming the challenges.

**Brief Bio:**

University of Washington BS ChemE 1979

University of Minnesota MS ChemE 1983 – thesis “Surface Modification of Porous Biomaterials”

3M Company 1982-present Sr. Research Specialist in the Corporate Research Process Lab

Work has involved gas / vapor phase processing of materials using plasma, corona, flame, and thin film deposition technology.

Focus on polymer surface science, adhesion, wetting, interfacial phenomena, and multilayer thin films.

Co-author 24 journal publications

Co-inventor 36 US patents