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**ZirChrom Separations Inc. and Cabot Corporation To Develop New Class of Chiral Chromatography  
Project Funded through NIH Phase I SBIR Grant**

(Anoka, MN) – (February 21, 2002) ZirChrom Separations, Inc. announced today a project to develop two new classes of chiral stationary phases (CSPs). The first of the new CSPs is based on the permanent covalent attachment of a variety of chiral selectors to carbon-clad, porous zirconia microspheres. The second new class of CSPs is based on the modification of zirconia through the use of catecholic anchors via coordination chemistry. Both projects are funded through a Phase I SBIR grant totaling \$100,000 from the National Institute of Health (NIH).

The goal of this project is to test the feasibility of developing at least two different type phases for analytical scale liquid chromatography. If successful, the new phases will allow for increased speed in analytical separations and higher throughput in preparative scale separations.

The project will be completed utilizing the carbon chemical vapor deposition technology developed by ZirChrom.

“One of the major innovations in our approach is the use of a nonpolar surface. When used with normal phase eluents, this new concept offers several important advantages over current state-of-the-art polar substrates, such as silica,” said Dr. Clayton McNeff, Vice President and Technical Director, ZirChrom. We anticipate very significant improvements in enantiomeric selectivity by minimizing the achiral contributions to retention that arise from the polar interactions of analytes associated with silica surfaces,” he explained.

Chromatography is the major chemical methodology used to separate, detect and quantify organic and inorganic biological chemicals. It is universally accepted as the most important analytical technique in drug discovery and production.

**About ZirChrom Separations**

ZirChrom Separations, Inc. is a company formed in 1995 and located in Anoka, Minnesota. ZirChrom manufactures a full line of zirconia-based high performance chromatographic materials for analysis and purification by high performance liquid chromatography (HPLC).

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