

## Strategic Investment by JSR in Biopharmaceutical Purification Technologies

–To provide novel process solutions for effective manufacturing of next-generation biopharmaceuticals–

**Tokyo, Japan, February 14, 2013** - JSR Corporation (President: Mitsunobu Koshiba) has signed a strategic partnership agreement with ChromaCon AG (headquartered in Zurich, Switzerland), a private company providing biopharmaceutical purification process technologies. Through JSR's investment in ChromaCon and the partnership agreement between the two companies, the effective purification process technologies of ChromaCon and the medical material technologies of JSR will be integrated to deliver innovative purification technologies and equipment to the global biopharmaceutical manufacturing market.

Chromatographic technology is used in the purification process in biopharmaceutical manufacturing to separate active ingredients from impurities. As the manufacturing of next-generation biopharmaceuticals becomes increasingly sophisticated, new technologies are constantly needed for achieving a much higher degree of purification efficiency.

Through this strategic investment, JSR will develop new technologies, with "Amsphere™ Protein A" as the base material, that allow the application of continuous chromatographic processes. Amsphere™ Protein A is a protein A medium developed by our company that is used in the purification process for manufacturing antibody drugs.

After obtaining an exclusive license for the MCSGP (Multicolumn Countercurrent Solvent Gradient Purification) process, an innovative continuous chromatographic process developed by the Swiss Federal Institute of Technology, Zurich, ChromaCon AG extended the conventional SMB process into the MCSGP process and thus successfully developed the "Contichrom®" equipment platform.

The MCSGP process allows the high-purity and highly efficient separation of compounds that cannot be separated by conventional purification processes. JSR will develop and provide purification media optimized for the MCSGP process through JSR Life Sciences Corporation. In combination with purification media to be developed with the Contichrom® platform, JSR will also provide the biopharmaceutical industry with purification solutions for next-generation biopharmaceuticals and their ingredients, which are difficult to produce at present.

ChromaCon AG has also developed a modified SMB (Simulated Moving Bed) technology, "CaptureSMB®," which is used for purifying antibody drugs. By combining CaptureSMB® incorporated in the Contichrom® platform with Amsphere™ Protein A, a purification medium of JSR Life Sciences Corporation, JSR will provide low-cost solutions to the biopharmaceutical industry.

In the biopharmaceutical industry, there is an increasing need for highly efficient purification processes for manufacturing novel antibodies and a wide variety of drugs in small quantities in order to develop next-generation biopharmaceuticals and generic versions of large-scale antibodies whose patents will soon expire. To address these needs, the JSR Group has established a global support system involving Group companies' offices in Europe, the United States and Asia (China and South Korea), with JSR Life Sciences Corporation playing the central role. Further efforts will be made to acquire more efficient processes and material technologies for manufacturing next-generation drugs in order to meet market needs.

### About ChromaCon

ChromaCon AG, a spin-off company from the Swiss Federal Institute of Technology (ETH Zürich), located in Zurich, Switzerland, is the only manufacturer of pharmaceutical purification technologies in the world that possesses the MCSGP process technology. The company provides biopharmaceutical manufacturers with an efficient chromatographic process developed by its own technology. Visit [www.chromacon.ch](http://www.chromacon.ch) for details.

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