

## Project: DENDRIMER

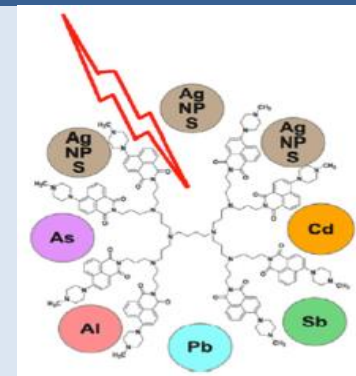
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**Period of STMS** (begin- and end date): 13 -21, October 2012

**Host institution** (address): In Sofia University "St. Kliment Ohridski", Faculty of Medicine, Sofia, Bulgari

**Mentor(s)** (name and contact data): Prof. Ivo Grabchev, PhD, In Sofia University "St. Kliment Ohridski", Faculty of Medicine, Sofia,



**Aims & subject of work** (480 characters, no spaces; Calibri 12):

In this study we focused on the development of new strategies for detection of target molecules using Raman spectroscopy and dendrimers. Usability dendrimers and Raman spectroscopy for analytical application were searched. New dendrimers to work with photosynthetic proteins for biosensor and bioassay application were developed.

Dendrimers coating of nanoparticle surface using different modification methods were investigated.

**Argumentation of necessity of STSM** (100 characters, no spaces; Calibri 12):

New strategies for detection of target molecules with dendrimers and Raman spectroscopy were investigated.

**Workplan/timeschedule followed** (4 bullets max., Calibri 12):

- Coordination a study for development of new biosensor and bioassay for detection
- Preparation of new proposal to extend the collaboration on dendrimers and SERS was decided.

**Main results and outcome** (conclusions):

This STSM allowed me to develop a detailed knowledge of the methodologies necessary for usage of dendrimers as recognition agent and detection of target molecules using Raman spectroscopy. An Interdisciplinary study was started for development of metal ions detection using Raman spectrometer. Experimental data was collected and possible challenges and limitations were discussed. The experimental works continues in both research centers. This STSM gave us an opportunity to discuss more detail about the possible opportunities on collaboration and new research on biosensor development using dendrimers and Raman spectroscopy.