## Offer of topics for Ph.D. study projects in Third Faculty of Medicine, Charles University in Prague

| Project:                     | The blood tension measurement                                       |
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| Mentor (Advisor):            | doc. Ing. Jana Vránová, CSc.  |
| Department:                  | Department of Medical biophysics and medical informatics            |
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| (email, telephone)           |   |
| Project Narrative: (max.     | The measurement of blood tension in patients in various             |
| 500 characters including     | circumstances (different temperature, sex, age, different day time) |
| spaces):                     | and in patients with different diagnosis – anemia, leukemia,        |
|                              | inflammations. Comparisons of these values with values of healthy   |
|                              | persons. Biochemical homeostasis is altered during various          |
|                              | diseases and it could be anticipated that changes within biological |
|                              | liquids (within the blood too) changes their surface tension        |
|                              | behaviour. We therefore expect that studies of surface tension      |
|                              | behaviour of blood will provide additional information and might    |
|                              | become useful in medical practice in all diagnostic process.        |
| Requirements for student     | Complete higher education in medical, natural science or technical  |
| applicants: (specify your    | (biomedical) specialization   |
| requirements such as degrees | _   |
| or period after degree was   |   |
| granted)                     |   |