

**SCHOOL ON BIOPHYSICAL APPROACHES TO MACROMOLECULES AND CELLS: INTEGRATED TOOLS FOR LIFE SCIENCES AND MEDICINE**

9 - 20 September 2019

c/o The Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania

| <b>WEEK 1</b> | <b>Monday 9</b>  | <b>Tuesday 10</b>   | <b>Wednesday 11</b>   | <b>Thursday 12</b>  | <b>Friday 13</b>   |
|---------------|--|---|---|---|--|
| 8.00-9.50     | <b>Registration of visits</b> (for all participants) <b>and payments of financial supports</b> (for those eligible, as per invitation letters).<br><b>WELCOME: OPENING REMARKS</b> | <b>NB: Lecture 1</b><br>CASALIS<br><i>Intro AFM</i>                       | <b>SB: Lecture 6</b><br>RIZZI<br><i>Drug Design</i>                       | <b>NB: Lecture 3</b><br>FERNANDEZ<br><i>Single Mol. Biomechanics</i>      | FERNANDEZ<br><i>Single Mol. Biomechanics Data Analysis</i> |
| 9.50-10.40    | <b>NB: General intro to the field</b><br>CASALIS   | <b>NB: Lecture 2</b><br>CASALIS<br><i>AFM Imaging</i>                     | <b>SB: Lecture 7</b><br>RIZZI<br><i>Drug Design</i>                       | <b>NB: Lecture 4</b><br>FERNANDEZ<br><i>Single Mol. Biomechanics</i>      | FERNANDEZ<br><i>Single Mol. Biomechanics Data Analysis</i> |
| Tea break     |  |   |   |   |  |
| 11.10-12.00   | <b>SB: General intro to the field</b><br>ONESTI  | <b>SB: Lecture 3</b><br>FRATERNALI<br><i>Bioinformatics</i>               | J. OMOLO  | <b>SB: Lecture 8</b><br>SAYERS<br>SAXS                                    | Z. SAYERS<br>(Including intro to SESAME)                   |
| 12.00-12.50   | <b>CB: General intro to the field</b><br>HASSANALI   | <b>SB: Lecture 4</b><br>FRATERNALI<br><i>Bioinformatics</i>               | S. NYANDORO   | <b>SB: Lecture 9</b><br>SAYERS<br>SAXS                                    | D. SHADRAK   |
| Lunch         |  | POSTER SESSION  |   | POSTER SESSION  |  |
| 14.30-15.20   | <b>SB: Lecture 1</b><br>ONESTI<br><i>Macromol. Crystallog.</i>   | <b>SB: Lecture 5</b><br>OLAJUYIGBE<br><i>Crystallization</i>              | M. RIZZI  | F. FRATERNALI   | STUDENTS TALKS   |
| 15.20-16.10   | <b>SB: Lecture 2</b><br>ONESTI<br><i>Macromol. Crystallog.</i>   | <b>Practical SB-A</b><br><b>Practical NB1-B</b><br><b>Practical CB1-C</b> | <b>Practical SB-B</b><br><b>Practical NB1-C</b><br><b>Practical CB1-A</b> | <b>Practical SB-C</b><br><b>Practical NB1-A</b><br><b>Practical CB1-B</b> | STUDENTS TALKS   |
| Tea break     |  |   |   |   |  |
| 16.30-17.20   | <b>CB: Lecture 1</b><br>HASSANALI<br><i>Molecular Modeling</i>   | <b>Practical SB-A</b><br><b>Practical NB1-B</b><br><b>Practical CB1-C</b> | <b>Practical SB-B</b><br><b>Practical NB1-C</b><br><b>Practical CB1-A</b> | <b>Practical SB-C</b><br><b>Practical NB1-A</b><br><b>Practical CB1-B</b> |  |
| 17.20-18.10   | <b>CB: Lecture 2</b><br>HASSANALI<br><i>Molecular Modeling</i>   | <b>Practical SB-A</b><br><b>Practical NB1-B</b><br><b>Practical CB1-C</b> | <b>Practical SB-B</b><br><b>Practical NB1-C</b><br><b>Practical CB1-A</b> | <b>Practical SB-C</b><br><b>Practical NB1-A</b><br><b>Practical CB1-B</b> |  |
| Dinner        |  |   |   |   |  |

| WEEK 2      | Monday 16   | Tuesday 17  | Wednesday 18   | Thursday 19   | Friday 20 |
|-------------|---|---|--|---|-----------|
| 9.00-9.50   | <b>NB: Lecture 5</b><br>SCHMIDT<br><i>Intro to Cell Mechanics</i>             | <b>CB: Lecture 3</b><br>LAIO<br><i>Data Science</i>   | <b>CB: Lecture 7</b><br>RODRIGUEZ<br><i>Data Science</i> | <b>CB: Lecture 8</b><br>COSSIO<br><i>Data Science</i> | RESUME    |
| 9.50-10.40  | <b>NB: Lecture 6</b><br>SCHMIDT<br><i>Non-equilibrium dynamics in Biology</i> | <b>NB: Lecture 4</b><br>LAIO<br><i>Data Science</i>   | P. COSSIO  | A. LAIO<br>A. RODRIGUEZ                               | RESUME    |
| Tea break   |   |   |  |   |           |
| 11.10-12.00 | <b>NB: Lecture 7</b><br>RONDELLI<br><i>Scattering</i>                         | <b>CB: Lecture 5</b><br>COSSIO<br><i>Data Science</i> | V. RONDELLI  | C. SCHMIDT  | Close     |
| 12.00-12.50 | <b>NB: Lecture 8</b><br>RONDELLI<br><i>Scattering</i>                         | <b>CB: Lecture 6</b><br>COSSIO<br><i>Data Science</i> | J. FERNANDEZ   | A. MOHAMMED KHALID                                    |           |
| Lunch       |   | POSTER SESSION  |  | POSTER SESSION  |           |
| 14.30-15.20 | M. NKOUA  | H. SWAI   | L. KIRURI  | F. OLAJUYIGBE   |           |
| 15.20-16.10 | OMOLOLU-ICTP<br>KIGALI  | Practical NB2-A<br>Practical CB2-B<br>Practical CB3-C | Practical NB2-B<br>Practical CB2-C<br>Practical CB3-A    | Practical NB2-C<br>Practical CB1-A<br>Practical CB2-B |           |
| Tea break   |   |   |  |   |           |
| 16.30-17.20 | SOFT SKILLS: HOW<br>TO WRITE A<br>PROPOSAL (OWSD-<br>ELETTRA )                | Practical NB2-A<br>Practical CB2-B<br>Practical CB3-C | Practical NB2-B<br>Practical CB2-C<br>Practical CB3-A    | Practical NB2-C<br>Practical CB2-A<br>Practical CB3-B |           |
| 17.20-18.10 | SOFT SKILLS: HOW<br>TO PRESENT YOUR<br>WORK                                   | Practical NB2-A<br>Practical CB2-B<br>Practical CB3-C | Practical NB2-B<br>Practical CB2-C<br>Practical CB3-A    | Practical NB2-C<br>Practical CB2-A<br>Practical CB3-B |           |
| Dinner      |   |   |  |   |           |

**LEGENDA:**

Structural Biology/Bioinformatics (SB)  
Nanobiophysics and nanomedicine (NB)  
Computational Biophysics (CB)

|                   |
|-------------------|
| Lectures          |
| Research Seminars |
| Practicals        |
| Soft Skills       |