



**The objectives of FragNet are to (a) train a cohort of ESRs across FBLD methods and (b) develop individual skills in research into either new methods in FBLD or to apply FBLD to interrogate biological systems.**

We are looking for highly motivated and talented students with a MSc degree who are interested in an ambitious multidisciplinary project on Fragment-Based Lead Discovery (FBLD).

**At this moment we have 15 vacancies**



[www.fragnet.eu](http://www.fragnet.eu)



## ESR1: 3D Fragments with small aliphatic rings

**Host:** VU University Amsterdam, The Netherlands

**Academic supervisors:** Dr. Maikel Wijtmans and prof. dr. Iwan de Esch (VU University Amsterdam)

**Industrial supervisor:** Dr. David Bailey (IOTA Pharmaceuticals)

### Synopsis

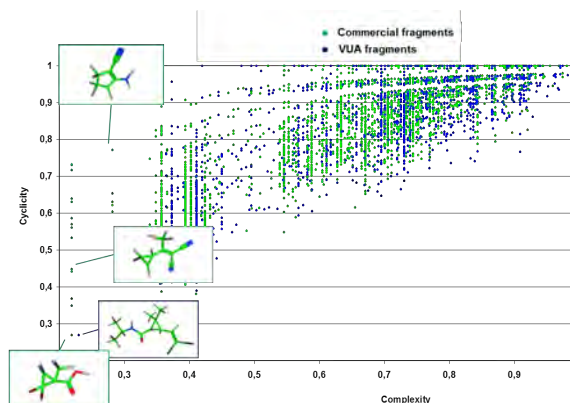
At present, 'flat' heterocyclic aromatic compounds seem to be overrepresented in fragment libraries. It is being debated if more fragments with 3D character (mainly arising from  $sp^3$ -hybridised carbon atoms) should populate the fragment libraries, even though these have higher complexity (and therefore have a lower chance of binding to a target).

### Objectives

1. Develop of novel chemistries leading to fragments that contain small aliphatic rings.
2. The identification of 3D fragments that bind to protein targets.
3. The hit optimisation of selected hit fragments.

### Approach

The aim is the development of focused libraries of small aliphatic rings, e.g., cyclobutyl-containing fragments. Towards this end, new chemistries with stereochemical control of the products will be developed. The resulting fragments have a higher complexity and their potential (e.g., hit rate and optimisation potential) will be explored by the Fragnet consortium. Fragment hits will be identified and used to fine-tune the focused libraries and to obtain optimized tool compounds for Fragnet projects.



### Qualifications

Applicants must have experience with modern organic synthesis, including heterocyclic chemistry, parallel chemistry and air-sensitive reactions. In addition, candidates must have experience in purification and analyses (1D-NMR, 2D-NMR, LC-MS, HR-MS, IR) of organic compounds. An interest in medicinal chemistry and its biological context is also a requirement.

### Key publications

1. Wijtmans *et al.* *MedChemComm.* **2010**, *1*, 39-44.
2. de Kloe *et al.* *Discov Today.* **2009**, *14*, 630-46.



#### FragNet offers:

- Generously funded positions (duration 36 months) for 15 Early stage researchers (ESRs)
- High profile research projects in an Innovative European Training Network Program
- Excellent facilities for research and education
- Research training in both academic and industrial settings
- Training in state-of-the-art scientific and transferable skills
- Intensive contacts with international collaborators & secondments in other research laboratories

#### FragNet is looking for candidates that:

- are highly motivated and talented
- are able to work in a multidisciplinary team
- are keen on intra-European mobility to perform PhD research abroad
- have good communication skills

#### Selection criteria of the candidate:

- fulfil the eligibility criteria (ESR, international mobility) for Marie Skłodowska-Curie Innovative Training Networks (Horizon 2020)
- have a MSc degree in Life Sciences or obtain a MSc degree by September 2016
- have completed a research internship with relevant expertise
- have obtained high grades during his/her studies
- be fluent in English

#### Application procedure:

1. Send your application mentioning the **ESR number** in the subject line to [hrm@fragnet.eu](mailto:hrm@fragnet.eu).
2. **Deadline for applications: 31 January 2016.**
3. Please send all the necessary information as **one pdf file** to [hrm@fragnet.eu](mailto:hrm@fragnet.eu).
  - Detailed **CV** (include information on your BSc and MSc studies, languages, achievements, expertise)
  - **Motivation letter**, addressed to the FragNet selection committee, explaining your motivation why you apply with us. You have to indicate which FragNet ESR project(s) you are interested in (please motivate your selection and indicate which has your preference).
  - Provide contact details of at least 2 references (names, addresses, emails).
  - **Reference letter** from one of the enlisted references
  - Copies of your key educational certificates
  - **Transcript of Records** (i.e. documents enlisting your performance as BSc and MSc student over time by listing the course units or modules taken, credits gained and the grades awarded). If you have not completed your MSc degree yet include all grades obtained so far.
4. You may apply to more than one ESR position. If you do, submit a separate and dedicated application file for each position.
5. If applicable provide a language certificate Application is OPEN 3. The applications will be assessed by the FragNet selection committee, in which all group leaders are represented. Candidates are in particular evaluated on creativity, originality, intellectual capacity and quality of CV and motivation letter. The selection committee also takes into account interdisciplinary and gender balance.
6. Potential (Skype) interviews will be arranged with the group leaders associated with the ESR projects.
7. The ultimate starting date for the ESR projects is: **1st September 2016**, as the complete Fragnet ESR cohort will participate in the first Fragnet workshop that will be organized in York, UK in September 2016.

For other FragNet related questions please contact: [info@fragnet.eu](mailto:info@fragnet.eu)

#### Eligibility criteria

Eligibility criteria of Marie Curie Initial Training Networks apply. Only applicants who comply to the following conditions will be considered:

#### Conditions of experience (ESR)

Candidates must be, at the time of recruitment by the host organisation, in the first four years (full-time equivalent) of their research careers and have not yet been awarded a doctoral degree. This is measured from the date when they obtained the MSc degree which would formally entitle them to embark on a doctorate.

#### Conditions of international mobility

Eligible candidates may be of any nationality but must not, at the time of recruitment have resided or carried out their main activity (work, studies, etc.) in the country of their host organisation for more than 12 months in the 3 last years immediately prior to the reference date.



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