



agence d'évaluation de la recherche  
et de l'enseignement supérieur

Department for the evaluation of  
research units

AERES report on research unit

Institute of Human Genetics

IGH

Under the supervision of the following  
institutions and research bodies:

Nouvelle Université de Montpellier

Centre National de la Recherche Scientifique - CNRS



February 2014



## Evaluation report

This report is the result of the evaluation by the experts committee, the composition of which is specified below. The assessments contained herein are the expression of an independent and collegial deliberation of the committee.

Unit name:	Institute of Human Genetics
Unit acronym:	IGH
Label requested:	UMR
Present no.:	UPR 1142
Name of Director (2013-2014):	Mr Giacomo CAVALLI
Name of Project Leader (2015-2019):	Mr Monsef BENKIRANE

## Expert committee members

Chair:	Ms Catherine DARGEMONT, Institut Jacques Monod, Paris
Experts:	Mr Ian ADAMS, Institute of Genetics and Molecular Medicine, Edinburgh, United Kingdom
	Ms Asifa AKHTAR, Max-Planck-Institut für Immunbiologie und Epigenetic Freiburg im Breisgau, Germany
	Mr José ALCAMI, Unidad de inmunopatología del sida, Madrid, Spain
	Mr Christophe ANTONIEWSKI, Laboratoire de Biologie du Développement, Paris
	Ms Valérie BORDE, Institut Curie, Paris (representative of CoNRS)
	Ms Bénédicte CHAZAUD, Institut Cochin, Paris
	Ms Michelle DEBATISSE, Institut Curie, Paris
	Mr Luciano DI CROCE, Center for Genomic Regulation, Barcelona, Spain
	Mr John DIFFLEY, London Research Institute, London, United Kingdom
	Mr Marco FOIANI, European Institute of Oncology, Milano, Italy
	Mr Bob LAHUE, Center for Chromosome Biology, Galway, Ireland
	Mr Helder MAIATO, Instituto de Biologia Molecular e Celular, Porto, Portugal
	Mr Christian MUCHARDT, Institut Pasteur de Paris, Paris
	Mr Didier TRONO, Laboratoire de Virologie et Génétique, Lausanne, Switzerland



Ms Claire VOURC'H, Institut Albert Bonniot, Grenoble (representative of CNU)

Scientific delegate representing the AERES:

Mr Pierre COUBLE

Representatives of the unit's supervising institutions and bodies:

Mr Philippe AUGE, Université Montpellier 1

Ms Ingrid CHANEFO, Université Montpellier 2

Mr Michel DESARMENIEN (Doctoral School CBS2 n°168)

Mr Bernard GODELLE, Université Montpellier 2

Mr Thierry GRANGE, INSB, CNRS

Mr Jacques MERCIER, Université Montpellier 1



# 1 • Introduction

## History and geographical location of the unit

The visit of IGH took place on from 05<sup>th</sup> to 07<sup>th</sup> February 2014. IGH is a CNRS unit founded in 1998 by Mr Jacques DEMAILLE and located within the Arnaud de Villeneuve Biomedical Campus in Montpellier, at close vicinity of other CNRS and INSERM laboratories. It has been directed by Mr Marcel MÉCHALI from 2003 to 2008, then by Mr Alain BUCHETON till 2010 and Mr Giacomo CAVALLI since 2011. From its onset, the main scientific interests of IGH concerned the organization, dynamics and expression of the genome from the molecular to the organism levels as well as the pathological consequences of dysregulation of these processes. IGH is composed of 21 teams organized in three departments, “Genome dynamics“, “Genetics and Development“ and “Molecular bases of human diseases“.

## Management team

The director, Mr Giacomo CAVALLI, is assisted by a deputy director, Mr Philippe PASERO, and a general administrator forming the Directorship board and a steering committee (director, deputy director, including heads of the departments Mr Monsef BENKIRANE, Mr Bernard DE MASSY, Ms Martine SIMONELIG and the director of Genopolys, Mr Marcel MÉCHALI). The group leader’s board and the Scientific Advisory Board are consulted to define the scientific policy of the Institute such as the selection of new research groups.

The Institute Council as well as ad-hoc committees participate to more general (organization, budget..) or technical aspects (equipment imaging, animal facilities, cell culture, health and safety) aspects of the Institute activities. A health and safety committee has been held according to the CNRS rules. Mr Monsef BENKIRANE is proposed to become director of the IGH for the next 5 years and Mr Dominique GIORGI as the deputy director.

CNRS is so far the unique stakeholder of IGH but this Institute now requests to be also associated with the Université de Montpellier.

## AERES nomenclature

SVE1 Biologie Santé

## Unit workforce

Unit workforce	Number as at 30/06/2013	Number as at 01/01/2015
<b>N1:</b> Permanent professors and similar positions	8	5
<b>N2:</b> Permanent researchers from Institutions and similar positions	47	50
<b>N3:</b> Other permanent staff (without research duties)	38 (37,4)	37 (36,3)
<b>N4:</b> Other professors (Emeritus Professor, on-contract Professor, etc.)	1	2
<b>N5:</b> Other researchers from Institutions (Emeritus Research Director, Postdoctoral students, visitors, etc.)	34	32
<b>N6:</b> Other contractual staff (without research duties)	26	23 (22,8)
<b>TOTAL N1 to N6</b>	<b>154 (153,4)</b>	<b>149 (148,1)</b>



Unit workforce	Number as at 30/06/2013	Number as at 01/01/2015
Doctoral students	26	
Theses defended	38	
Postdoctoral students having spent at least 12 months in the unit*	26	
Number of Research Supervisor Qualifications (HDR) taken	14	
Qualified research supervisors (with an HDR) or similar positions	35	38

## 2 • Overall assessment of the interdisciplinary unit

The Institute for Human Genetics (IGH) in Montpellier became a flagship for life sciences in France during the past 10 years. A majority of the teams perform outstanding and highly innovative research, some of them being world-leaders in their field. A major effort has been made over the past 5 years to set up an official status for junior groups and attract international scientists (PhD students, postdocs and PI). The intellectual atmosphere of IGH is very intense and scientific life well organized. Most scientific projects proposed for the next 5 years are simply superb and the experts committee has no doubt that the future director, will be able to pursue this quest of excellence. Although involvement of IGH scientists in teaching activities was rather modest over the past years, they have recently accepted to reorganize and develop the Genetic, Epigenetic and Bioinformatic Master programs that will contribute to disseminate their unique expertise and knowledge in these domains in the Montpellier area.

The Institute has been able to develop close links and mutualisation with Institutes on the same campus, and in particular IGF (Institut de Génétique Fonctionnelle). The experts committee feels that an association between IGH, as an UMR, and the novel unified Nouvelle Université de Montpellier would be of mutual benefit for both partners (if well thought out and balanced) particularly in light of the expanding de Villeneuve Biomedical campus.

In summary, this is a world-class institute which represents an essential pillar of Life Sciences in France.

### Strengths and opportunities related to the context

- world-class institute as judged by outputs and fundings;
- great balance of excellent and very promising junior group leaders and outstanding senior Pis;
- ambitious scientific projects organized around synergistic axes;
- intense internal and external collaborations;
- very active scientific life creating an exciting environment for students and postdocs alike;
- exemplary leadership and governance bringing the institute to the forefront of the scientific community;
- highly attractive institute for national and international scientists;
- provide state-of the art infrastructures for a large number of technologies.

### Weaknesses and threats related to the context

- suffers from insufficient transgenic mouse facilities;
- suffers from insufficient office space for young PIs and researchers;
- insufficient administrative support for international fundraising and partnership with industry;
- insufficient number of PhD studentships.



## Recommendations

- continue the quest for excellence;
- association with the future Montpellier University was deemed a highly beneficial initiative which would provide an opportunity to participate in life science policy and education;
- continue to strengthen the mentoring program for young group leaders;
- improve involvement in master programs to disseminate institute expertise and attract PhD students;
- develop strategy to interact and integrate with the coming faculty of medicine and university hospital;
- this outstanding institute deserves a strong support, including administrative support for fundraising and management of human resources (in particular regarding assistance to international students/postdocs), science communication, and time-limited contracts by the stakeholders, as well as an increase in the number of PhD fellowships;
- explore all avenues to maintain the former director of IGH and current director of Genopolys in activity (not as an emeritus).



### 3 • Detailed assessments

#### Assessment of scientific quality and outputs

The scientific production of IGH has been outstanding with 302 publications between 2008 and 2012, including 50 % with the first and the last authors from IGH. 20 % of these research papers have been published in high profile journals with an IF>10 (2 Nature, 9 in other Nature series, 6 Cell, 2 Science, 7 Genes & Dev, 6 Mol Cell, 7 EMBO J, 5 PNAS, etc) and the mean of IF is 6.4.

Ongoing research is highly innovative and has led to several seminal papers on the identification of PRDM9 as a major determinant of meiotic recombination hotspots (Baudat et al., Science 2010), the role of piRNAs in maternal mRNA deadenylation and decay (Rouget et al., Nature 2010), the organization of chromosomal domains (Bantagnies et al., Cell 2011; Sexton et al., Cell 2012), identification of SAMHD1 as the dendritic and myeloid-cell-specific HIV1 restriction factor (Laguette et al., Nature 2011) the role for the microprocessor and transcription terminator components to induce premature termination of PolII RNA (Wagschal et al., Cell 2012), the role of MCM9 in the assembly of pre-replication complexes and proper homologous recombination (Lutzmann et al., Mol Cell 2008 and 2012), the Fanconi Anemia Protein FANCM and DNA replication (Gari et al., PNAS, 2008), new insights in the replication stress response (Crabbé et al., NSMB 2010; Tuduri et al., NCB 2009).

Since 2008, a total of 39 IGH PhD students have defended their thesis with only 5 without published papers yet.

#### Assessment of the unit's academic reputation and appeal

The outstanding academic reputation of IGH is attested by the award both of national and international competitive funding. Of note, 6 ERC grants (4 advanced, 1 consolidated, 1 junior), 4 ATIP/Avenir, 22 grants from ANR have been attributed to IGH scientists. Other grants were obtained through collaborative work, in particular 5 groups belong to the European network of Excellence Epigenesys, another EU-FP7 HIT-HIDDENHIV is coordinated by an IGH member, and the Labex EpigenMed has been initiated by the IGH director and is now directed by an IGH group leader.

Both senior and junior members of IGH have received prestigious honors, such as memberships of EMBO (3 new members), CNRS “Médaille d’Argent” (2), “CNRS Médaille de Bronze” (1), awards from the French Academy of Science (6) and from foundations or charities (FRM, Ligue Nationale contre le Cancer) among others. The strong reputation of the groups of this unit is also attested by the numerous invitations to national and international meetings and talks in various universities and prestigious institutes.

Many PIs of the unit participate in expert committees (ERC Starting Grant Committee Life Science, FP7-HEALTH committee, ANR and ANRS committees, INSERM and CNRS recruitment committees, ARC/Ligue Nationale contre le Cancer/Sidaction scientific committees), or editorial committees (Invited editors or members of editorial boards for PLoS Genetics, PLoS One, Cell Reports, Epigenetics and Chromatin, Retrovirology, etc) and participate actively as referees in scientific reviewing.

PIs of the unit have been regularly involved or are currently participating in the organization of national or international meetings (EMBO Conference Series on Nuclear Structure and dynamics, the EMBO Conference Series on Meiosis, Academy of Sciences International Conference “Epigenetics, Reprogramming and Development”, EMBO YIP Genome Integrity, AFRAVIH 2014 meeting, AIDS vaccine international meeting, IBC’s Annual International Conference...).

#### Assessment of the unit's interaction with the social, economic and cultural environment

Technological transfer activities are rather modest at IGH. Only 10 patents and 2 IDNN have been accepted over the past 5 years and few groups only develop collaborative projects or consulting activities with industry. However, IGH members mentioned during the visit that some contracts with companies have been delayed or even worse, are seriously in danger because of a serious lack of support from the juridical CNRS services.

Translational activities of IGH are still fair. According to the outstanding quality of groups working on HIV or mechanisms involved in carcinogenesis, this modest interest for applications of research is surprising and a major effort is expected to be done over the next years. The experts committee has however noticed the proposed association between an IGH team and members of an INSERM unit that aims at developing novel therapeutic strategies to target replication forks in cancer cells, notably in Multiple Myeloma.



One can note that some PIs are members of scientific councils of French scientific charities, or deeply involved in governmental structures or agencies dedicated to pathologies (ANRS, SIRIC, Canceropoles..).

IGH strongly participated to the initiation and elaboration of Genopolys (led by one of the IGH group leader and former director), a structure created by CNRS, INSERM, UM1 and UM2 but also supported by the city, the department and the region as well as by the Sanofi company. Genopolys, a structure inaugurated in 2013, is dedicated to training, scientific exchanges and scientific dissemination in life sciences and medicine in order to foster debates between scientists and industry, scientists and medical doctors, scientists and society.

In addition to this initiative several group leaders participate to public events such as “Fête de la Science”.

### Assessment of the unit's organisation and life

The director of IGH is assisted by a deputy director, and a general administrator forming the Directorship board and a steering committee (director, deputy director, heads of the departments and the director of Genopolys). According to the recommendations of the previous evaluation committee, a Scientific Advisory Board has been created that assists IGH in its scientific policy, in particular in the selection of new research groups. Based on discussions with staff scientists during the visit, the experts committee recommends to the IGH direction to better communicate on decisions and internal rules in order to keep the spirit of IGH membership. The experts committee appreciated the very positive opinion of technicians, engineers and administrative staff on the IGH governance and atmosphere. However, the quite brutal management of personnel employed on temporary contracts has been underlined. In addition, it was also mentioned that the deficit in personnel for management will be aggravated by the new ERCs and by the future association of the IGH with the university.

A major effort has been made over the past 5 years to introduce the status of junior group leader (5 years contract, lab space of 50 m<sup>2</sup>, access to institute facilities, financial support when necessary) and to implement their mentorships, including lab management course, designation of an internal and an external mentor with at least two contacts per year, two evaluations, the last one being performed by AERES or the SAB. The experts committee was deeply impressed by the scientific quality of the junior groups.

The unit is composed of autonomous groups, each under the direction of one, or in some cases two PIs, which are responsible for the financial and scientific direction of their group. The Institute Council as well as ad-hoc committees participate to more general (organization, budget..) or technical aspects (imaging, fly and mouse facilities, conventional animal facilities, L3 labs, health and safety, IGH store, informatics and biocomputing, washing and media preparation, building maintenance, administration) aspects of the Institute activities. All groups have access to these institute facilities. However, despite this appropriate organization, a strong recommendation of the experts committee is to be aware on the space for offices, in particular those dedicated to the staff scientists. Two groups were proposed to be co-led by two PIs but the experts committee feels that, in these cases, there is no added value for teams of this size to be co-managed by team leaders with similar skills and expertise.

Although the total budget (excluding salaries of staff members) has increased by over 250 % within the past 5 years, the IGH resources are mainly based on the ability of PI to be successful in competitive national and international calls. Indeed the proportion of the CNRS subsidy, which serves to maintain infrastructures, displays a regular decrease. On the same line, it is more and more difficult for IGH (as all CNRS labs) to get staff positions for technicians and engineers. This situation can become problematic to run or develop technical facilities. This critical situation likely constitutes the main reason why IGH is searching for new stakeholders, namely universities.

The experts committee feels that an association between IGH (as an UMR) and the novel unified Nouvelle Université de Montpellier would be a good opportunity for both partners. The university could then take advantage of the outstanding scientific expertise and resources to renovate the educational program in Life Sciences. On the other side, IGH could fully integrate in the Campus (notably with the new Faculty of Medicine). IGH could profit from new support sources, in particular administrative support, that could be mutualized between the Life Sciences Institutes on this Campus, regarding fundraising, science communication and international meeting organization, human resources management, assistance to international scientists.

The scientific life of IGH is very intense and well organized. It is divided in internal and external events. There is a weekly lab seminar during which all researchers, postdocs and PhD students present the results of their studies. Once per year, a day is devoted to the new comers. Scientific retreats are organized in each department every 2 years and the Journées de l'IGH bring together the complete institute every 2 years. On the other side, external seminars are organized every week. The recent opening of Genopolys facilitates the participation to seminars organized by



other labs from the close environment. In addition, each department organizes seminar series with leading scientists of a field. One can note that the high density of labs devoted to life science in Montpellier is very favourable to foster a very dynamic scientific environment.

### Assessment of the unit's involvement in training through research

The IGH staff members contribute to teaching at different levels of LMD (Licence, Master and Doctorat) some being responsible or co-responsible of Licence and Master courses particularly in Genetics, epigenetics and Bioinformatics. It is somehow surprising that only 22 scientists (for 56 staff scientists in total) are involved in teaching activities, mainly to a low extent (less than 6 hrs per year). An increased involvement in teaching duties that is planned in the next 5 years may improve the attractiveness of the institute for students.

IGH is affiliated to the Doctoral School CBS2 “Chemical and biological sciences for health“ and is deeply involved in the organization of this school. 38 PhDs have been defended during the past five years, which is a low number compared to that of staff scientists in the IGH (56 including 29 with an HDR), that could be improved. More precisely the supervision rate (number of PhD students/HDR) is good but more researchers should be stimulated to get their HDR. In addition IGH participates to an international PhD program organized and financed by the Labex EpiGenMed. Group leaders of IGH unanimously complained on the low number of PhD fellowships, and in particular those granted by the Region Languedoc Roussillon that have been cancelled. Obviously, the number of fellowships is not adapted to the number and quality of Institutes devoted to Life Sciences in Montpellier.

The mean duration of the PhD is 48 months (+/-8.5 months), which is on the high side compared to French standard, even in life sciences. Each PhD student benefits from a customized thesis committee and a mentorship program, in addition to the excellent scientific environment of the IGH (notably in terms of seminars, conferences and other international scientific events). A common request from PhD students and postdocs is that IGH could set up a travel support fund to help send students/postdocs to conferences. This could be competitive, with applicants writing a short proposal. In addition, IGH may provide more/better career development; specifically, courses or in-lab training in manuscript writing, grant writing and manuscript review. Finally, IGH should be aware to provide internal communication both in French and English to not exclude international students and postdocs. Along the same line, nearly all formation courses provided by the ED are in French only!

### Assessment of the strategy and the five-year plan

Beside keeping, or even better improving the exceptional scientific level, the proposed project of IGH for the next five years follows different axes:

- to create more bridges between IGH and clinicians. This task should be facilitated by the new medical school next door and the hosting of a Professor of Medicine in human genetics. Interaction with Hospital on the campus should be strongly encouraged;

- to develop bridges between IGH and industry: IGH proposes to include an R&D director in the SAB, to use Genopolys as a hub in particular to organize a dedicated meeting in 2015;

- to develop Bioinformatics: for this purpose, their last call for PI selected a bioinformatician. In addition, a Professor position has been created to replace one of the group leaders responsible for the development of an important database. Finally, ongoing discussions are taking place to create a bioinformatic facility in the Pole Rabelais;

- to improve attractiveness for PhD students and postdocs. For this purpose, scientists from IGH are aware that it will require a deeper involvement in teaching. The experts committee proposes to mainly focus on Master's program, and particularly on Master 1. In addition the experts committee recommends to better facilitate the integration of international scientists (internal communication both in French and English, courses in English, assistance for administration, for finding apartments...);

- to improve fundraising: IGH proposes to join forces of IGH, IGF and CBS to establish a grant office (EU, International funding agencies, foundations). Such an initiative should be encouraged and supported.



**Team 19:** Systemic Impact of Small Regulatory RNAs

Name of team leader: Mr Hervé SEITZ

Workforce

Team workforce	Number as at 30/06/2013	Number as at 01/01/2015
N1: Permanent professors and similar positions		
N2: Permanent EPST or EPIC researchers and similar positions	1	1
N3: Other permanent staff (without research duties)		
N4: Other professors (PREM, ECC, etc.)		
N5: Other EPST or EPIC researchers (DREM, Postdoctoral students, visitors, etc.)	1	1
N6: Other contractual staff (without research duties)	1	1
<b>TOTAL N1 to N6</b>	<b>3</b>	<b>3</b>

Team workforce	Number as at 30/06/2013	Number as at 01/01/2015
Doctoral students		
Theses defended		
Postdoctoral students having spent at least 12 months in the unit	1	
Number of Research Supervisor Qualifications (HDR) taken		
Qualified research supervisors (with an HDR) or similar positions	1	1

- Detailed assessments

Assessment of scientific quality and outputs

During his post-doctoral work, The PI made seminal contributions in small RNA biology and acquired a reputation of expert in systems biology and statistics. Micro-RNAs have been involved in numerous biological processes. Each miRNA has the potential to target the silencing of many mRNAs through imperfect base complementarity. However, the biological significance of many predicted miRNA-mRNA interactions remain unclear, as most of these interactions result in only a 1.5 to 2-fold repression of the targets. The team is built on the “pseudo-target” hypothesis (Curr Biol, 2009) upon which most of miRNA targets would actually be pseudo-targets whose function is to buffer/quench miRNAs and thus to modulate the repression of real miRNA targets. The main idea is that real targets would be genes sensitive to the -2-fold repression by miRNAs, and therefore would tend to be haploinsufficient, whereas pseudo-targets would accommodate fluctuations higher than 2-fold. Over the past years, the hypothesis was refined to make predictions, which were tested through high-throughput, genome-wide analyses



and systems biology approaches. Three of these predictions (the most abundant mRNAs bear the most conserved miRNA binding sites; the most dose-sensitive mRNAs bear the most conserved miRNA binding sites; many predicted microRNA targets are insensitive to microRNA-mediated repression) are now well supported. Considering that the team was created only 2 years ago, the limited number of publications is understandable. The pseudo-target theory has the potential to produce major insights. The team has implemented original systems biology approaches and has expertise in big data analyses, bioinformatics and statistics that should benefit to the IGH.

### Assessment of the unit's academic reputation and appeal

The team leader has published a number of scientific articles in highly rated journals (Science, Nat Struct Mol Biol, Curr Biol) before starting his group at IGH. The expertise of the team in bioinformatics and statistics is well established and highly valuable for IGH. The PI was a member of the organization committee of the “Journées Ouvertes en Biologie, Informatique et Mathématiques”, this illustrates well this reputation. The team leader has been invited to many prestigious international meetings in the field. A post-doc in the team has given a talk at a Cold Spring Harbor Symposium. The team leader has been reviewer for many journals (Biochimie, BioEssays, Biophysical Journal, Cell Research, Current Biology, EMBO Reports, Genome Biology, Genome Research, Genomics, Nucleic Acids Research, PLoS One, RNA and Silence).

### Assessment of the unit's interaction with the social, economic and cultural environment

The team leader has been referee for the “Deep-sequencing” call for proposals of the GIS IBiSA (Génoscope and Centre national de séquençage, France) (2010) and for French grant agencies “ARC Alsace” (2011) and “ANR” (program “ANR Blanche”, 2012). The team is supported by an ATIP-Avenir grant sponsored by Sanofi and has established contacts with this company. The team leader had consulting activities for Medesis Pharma, S.A. The team published an article in “Pour la Science” (Les petits ARN entrent dans l'arène), accessible to the lay public.

### Assessment of the unit's organisation and life

The team is relatively small, being composed of 1 staff scientist, 1 Assistant-Engineer and 1 or 2 post-docs in addition to the PI. On the one hand, the lack of perspectives for publications in high standard journals in the short term is worrying. On the other hand, the Systems Biology projects for the next 5 years are very ambitious and will require a reinforcement of the team personnel.

### Assessment of the unit's involvement in training through research

There is no PhD student currently in the team. The team leader participates in teaching in different Master programs in Toulouse, Rennes, Lyon and Paris, and was member of 6 theses and 1 HDR committees.

### Assessment of the strategy and the five-year plan

Ongoing and future works are essentially aimed at testing various predictions from the pseudo-target theory. This implies the precise quantification of miRNAs, mRNA targets and pseudo-targets in *Drosophila* cells, data that is clearly missing in the field. Potential competitions between pseudo-targets will also be addressed, with the perspective of identifying new regulatory networks. Last, additional pseudo-targets will be searched through the identification and characterization of long non-coding RNAs in *Drosophila*. The research plan is very ambitious, requiring important manpower and funding as well as diversity of expertise (mouse and *Drosophila* models, genetics, high-throughput genomics, bioinformatics & computational biology).

### Conclusion

- Strengths and opportunities:

The team has a renowned expertise in miRNA systems biology and carries on very high profile science with an original angle in a competitive field. Its bioinformatics and statistics skills open real opportunities for collaborations in the community.



- Weaknesses and threats:

The approaches of the team are strongly driven by the pseudo-target theory. This is a risk because the theory, although not formally demonstrated, is generally accepted and used by the community; making a breakthrough under those conditions seems difficult. In addition, the strong focus of the lab generates a risk of neglecting other possible explanations for the lack of impact of miRNAs on many predicted targets (site-accessibility, required multiplicity of binding sites on the same RNA, etc).

- Recommendations:

The team has very strong potential and should quickly establish solid ground by publishing in order to be able to move forward. Mentoring by senior scientists in the field would be beneficial.