

HUB NEWSLETTER



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Happy New Year 2023

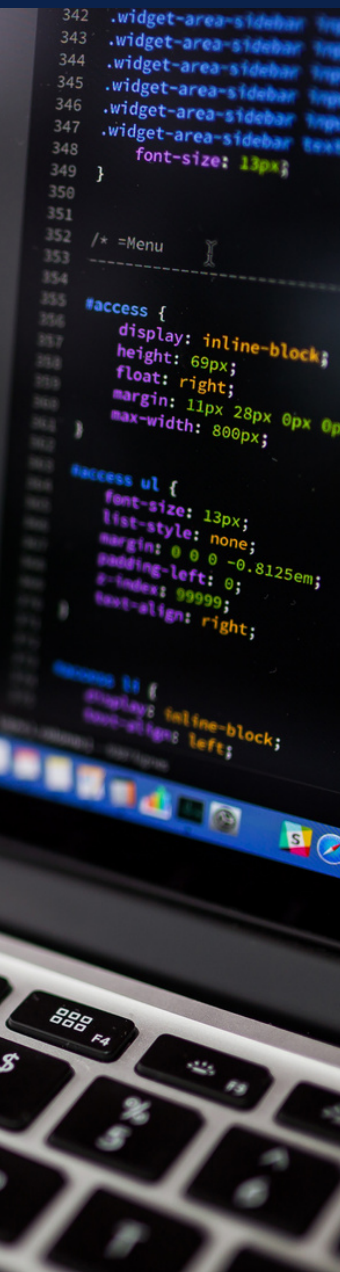
Happy new year and good health to all. Success prosperity, physical and mental health.

The newsletters resume in the same spirit as before, but at a now quarterly rate.

Good reading

PS : all underlined texts are hyperlinks





Empirical models of amino acid substitution

Annual update of the catalog of evolutionary amino acid models: four new matrices(HIVin, HIVpr, VIRin, VIRpr)



<http://giphy.pasteur.fr/empirical-models-of-amino-acid-substitution>

MacSyFinder v2

Major release of MacSyFinder.



<https://github.com/gem-pasteur/macsyfinder>
<https://github.com/macsy-models>

slivar_vcf_extraction :

Use slivar on a VCF file to: annotate, filter (according to quality, family criteria, ect.). Return both an indexed .vcf.gz and a .tsv.gz file



https://gitlab.pasteur.fr/gmillot/slivar_vcf_extraction

Fisher for VCF :

Compute the Fisher exact test statistics (score) and p values from a vcf annotated file made of patient and control cases. Return a res.tsv file and a Miami plot.



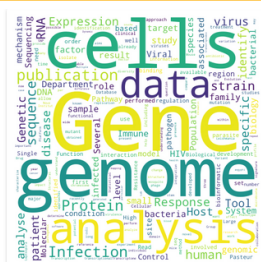
https://gitlab.pasteur.fr/gmillot/fisher_for_vcf

Homopolymer :

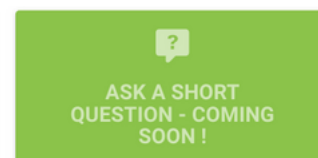
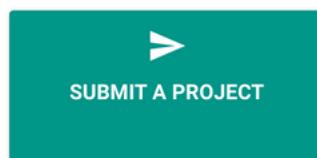
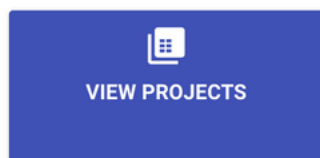
Return homopolymers info per DNA sequence in a batch of DNA sequences, as well as statistics about homopolymers for this batch.



<https://gitlab.pasteur.fr/gmillot/homopolymer>



Welcome to Hub Portal



HUB PORTAL

Since the beginning of January, a new version of web interface is available to submit and manage projects to the Hub. This interface is provided by the last version of BISTRO (*Beautiful Interface and System To Report and Organize*). Training sessions took place on Tuesday 17 and 24 January.

For any problem you may encounter/notice or suggestion, do not hesitate to send a feedback at bistro@pasteur.fr

New address :

<https://hub-portal.pasteur.cloud/>

COURSES



Bioinformatics program for PhD students 2022-2023 :

All informations on the dedicated page :

<https://research.pasteur.fr/en/course/bioinformatics-program-for-phd-students-2022-2023/>

February 17 : Next session - Common Core



Data analysis :

Closing of the Data Analysis course at ENS: the courses took place in November 2022, the students' evaluations were returned on 31/01. The course was very appreciated by the students.

VISIT



Visit on January 26 of David Causeur (Institut Agro Rennes Angers - Department of Statistics and Informatics) and three Master students for a presentation and discussion about deconvolution in RNA-Seq. They were welcomed at the Hub by Emeline and Natalia

OPENDESK



Every Tuesday mornings from 10am to 12am (Yersin Building (24), Ground Floor), Hub engineers provide a direct support to any members of Institut Pasteur. Also possible on Teams

Don't forget to check your group and calendar here on [dedicated research page](#)

WEBCAMPUS



Now, the Hub has own page on webcampus website.



This page is accessible from the page of the Direction of Technology, in the menu on the right or [here](#).



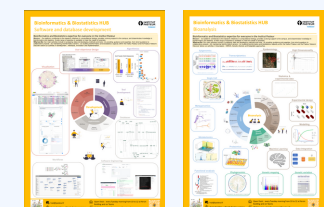
Computational Biology Department Day - 28/11/2022 :

Last November 28 was the departmental day of the Computational Biology department.



OpenDay Of Technology Department - 6/12/2022 :

The first edition of the Technology Department Open Day, held on December 6, was a resounding success, with the participation of all 35 platforms and core facilities, UTechS, Hubs and collections in the Technology Department, as well as teams from the Grants Office, the Technology Transfer and Industrial Partnership Department (DARRI) and the Department for Scientific Programming and Incentive Actions (SPAIS), and a large number of visitors from research units who came along for this unique event.



This is an informal half-day event allowing the various members of the laboratories to meet in one place and to exchange with all the entities of the Technology Department on their specific needs. It is intended for all the actors of research: PhD students, post-docs, technicians, research engineers, researchers, IPs.



Posters availables in Teams

[Hub-->communication-hub -->4.Posters brochures](#)



DT Retreat - 15/12/2022 :

On December 15th, the Technology Department's day/retreat took place at the 15th arrondissement's City Hall. After a presentation of the Titan, several convivial moments were organized in order to better know the various teams which compose the DT.



[Technology Department Brochure](#)



Christmass Party :

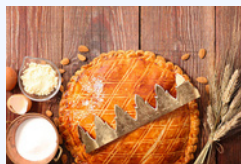
The Hub's Christmas dinner took place on 12 December 2022. Secret Santa, music, champagne, petits fours, board games, ... the perfect mix for a successful evening.



Galette des rois :



On 10 January, after the Hub meeting, several galettes des rois were shared in the Agora.



For those who do not yet have a lunch box, an order has been placed by Mélanie.

You can pick up your lunch box from Elodie (Yersin building - 1st floor - office 06)

GROUP COM' HUB

After two calls for applications, the Com' group was renewed. Thanks to Claudia Chica, Sebastien Mella, Natalia Pietrosevoli, and Rachel Torchet for their investment in the com' group and setting up the vast majority of the materials.

The current list of members and their roles are:

- Coordinators: Amaury and Elise
- Newsletter: Elodie
- Maintenance of the research site: Elise
- External communication: Pascal
- Internal communication: Emmanuelle
- Confluence pages: Thomas B.
- To represent the detached: Thomas C. & Johann
- Moderators: Hervé and Marie-Agnès

Reminder of the missions :

- The newsletter: quarterly (thanks for your contributions)
- The organization of festive / animation events
- The representation of the Hub:
 - Internally: department / DT days, Hub organization chart, ...
 - Externally: contribution to presentation slides, posters, welcome days, department retreats outside DBC, ...
- There is a general presentation slide of the Hub available for members who present at the retreats of their department

You can contact us at comm-hub@pasteur.fr

SID CORRESPONDENT

Within the Hub, Natalia Pietrosevoli and Bertrand Néron are Security, informatic and Data correspondent or CSID.

The last meeting took place on 2022/12/19. You can find a brief report [here](#). More information on [webcampus page](#), [role](#), [list](#).

SHORT QUESTIONS

Pending the return of this functionality within Hub Portal (cf page [2](#)), Olivier Mirabeau is in charge of managing short questions that arrive by email at c3bi-ask (with redirection to hub@pasteur.fr)



NEW MEMBERS



Stephan Fisher

Stephan joined us, on CDI, on 01/09/22 within GORE pole.

Location : Yersin Building - ground floor - office 03

Poste : 96 33



Artem Baidaliuk

Artem joined us, on CDI, on 01/12/22 within G5 Evolutionary genomics of RNA viruses.

Location : François Jacob Building- 1st floor - office 06

Poste : 97 18



Evangelia Eleftheriou

Evangelia joined us on 01/09/22 as part of "Milieu Intérieur" project.

Location : Metchnikoff Building- 4th floor - office 50

Poste : 97 79



Simon Malésys

Simon joined us, on CDI, on 01/09/22 within WINTER pole.

Location : Yersin Building - 1st floor - office 06



Samar Berreira Ibraim

Samar joined us, on CDD, on 01/09/22 as part of EMERGEN project.

Location : François Jacob Building- 4th floor - office 09B

Poste : 96 32



Julia Kende

Julia joined us, on CDD, on 12/09/22 within PAGE pole.

Location : Yersin Building - 1st floor - office 06



Elodie Chapeaublanc

Elodie joined us, on CDI, on 03/10/22 within WINTER pole.

Location : Yersin Building - 1st floor - office 06

Poste : 97 18



Juliette Meyer

Juliette joined us, on CDI, on 10/10/22 within STATS pole.

Location : Yersin Building- 1st floor - office 09

Poste : 97 53



SOON : CONFERENCES

RECOMB April 16-19 2023 (Satellite workshop april 14-15) :



The RECOMB conference series was founded in 1997 to provide a scientific forum for theoretical advances in computational biology and their applications in molecular biology and medicine. The conference solicits research contributions from all areas of computational molecular biology. The origins of the conference came from the mathematical and computational side of the field, and there remains a focus on computational advances. In addition, the effective use of computational techniques in biological discovery is also an important aspect of the conference

The 13th RECOMB Satellite Conference on Biological Sequence Analysis (RECOMB-Seq 2023), will be held on 14-15 April, 2023 in Istanbul, Turkey, just before the main RECOMB conference. The conference brings together leading researchers in computational genomics and genomic biology. The emphasis will be on new algorithmic and statistical methods for sequence data analysis, management, and interpretation of sequencing data as well as assembled genomes.

JOBIM June 27 - 30 2023 :

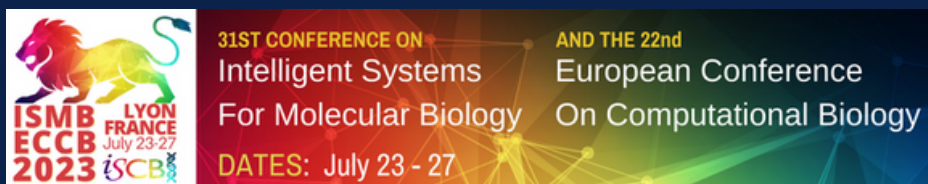


The Journées Ouvertes en Biologie, Informatique et Mathématiques (JOBIM) are an opportunity to discover scientific and technical advances in bioinformatics. This 2023 session will address many multidisciplinary fields.

For more than 20 years, JOBIM has been the annual event that federates French bioinformatics. The 2023 edition will be held on 6 sites in France and Canada from 27th to 30th June.

The selected sites are : Montréal, Nancy, Nice, Pointe à Pitre, Roscoff et Tours.

ISMB/ECCB July 23 -27 2023 :



ISMB/ECCB is the largest and most high profile annual meeting of scientists working in computational biology and provides an intense multidisciplinary forum for disseminating the latest developments in computational tools for data driven biological research. The conference's rigorous focus on computation and methodology coupled with outstanding biology is a must attend event of the year! ISMB/ECCB 2023 will spike your curiosity, deliver the latest research in the field, and allow you to connect, collaborate, and engage.

ISMB/ECCB 2023 will be held in-person at the Centre de Congrès de Lyon and virtually through ISCB's nucleus platform.

LES PUBLICATIONS EN LIBRE ACCÈS DE L'INSTITUT PASTEUR

**Don't forget to add your publication in HAL PASTEUR.
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How to submit your publication : [2 mintute-video tutorial](#)

Links :

- **Website :** <https://hal-pasteur.archives-ouvertes.fr/>
- **Ask us your questions :** hal-pasteur@pasteur.fr
- **USER GUIDE :** [English](#)
- **Official documentation HAL :** [In English](#)
- **Videos tutorial :** <https://doc.archives-ouvertes.fr/tutoriels-video/>
- **CeRIS web page on Open Access:** [In English](#)
- **See easily [all publications of hub](#) with searching by structure**

Reminder about rules to follow for affiliation in scientific publication

Remind that the affiliation to the Hub must be mentioned the following way :

**Institut Pasteur, Université Paris Cité, Bioinformatics and Biostatistics
Hub, F-75015 Paris, France**

With the name of the Hub written in English. **No change in this
affiliation is allowed.**

Each and every person with a total or partial affiliation to the Hub **MUST** mention this affiliation, and must do it that way. This is mandatory.

More details in Note d'organisation 0125 available in [pdf format](#).



PUBLICATIONS

Kämpfer P, Lipski A, Lamothe L, Clermont D, Criscuolo A, McInroy JA, Glaeser SP (2022) **Paenibacillus allorhizoplanae sp. nov. from the rhizoplane of a Zea mays root.** Archives of Microbiology. 204(10):630. [doi:10.1007/s00203-022-03225-w](https://doi.org/10.1007/s00203-022-03225-w)

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Savin C, Le Guern AS, Chereau F, Guglielmini J, Heuzé G, Demeure C, Pizarro-Cerdá J (2022) **First Description of a Yersinia pseudotuberculosis Clonal Outbreak in France, Confirmed Using a New Core Genome Multilocus Sequence Typing Method.** Microbiology Spectrum. 10(4):e0114522. [doi:10.1128/spectrum.01145-22](https://doi.org/10.1128/spectrum.01145-22)

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R Arauna L, Bergstedt J, Choin J, Mendoza-Revilla J, Harmant C, Roux M, Mas-Sandoval A, Lémée L, Colleran H, François A, Valentin F, Cassar O, Gessain A, Quintana-Murci L, Patin E. **The genomic landscape of contemporary western Remote Oceanians.** *Curr Biol.* 2022 Sep 8;S0960-9822(22)01377-X.
[doi: 10.1016/j.cub.2022.08.055](https://doi.org/10.1016/j.cub.2022.08.055)

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bioRxiv 2022.09.02.506364
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[doi:10.1099/ijsem.0.005590](https://doi.org/10.1099/ijsem.0.005590)

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[doi: 10.1128/mbio.01732-22](https://doi.org/10.1128/mbio.01732-22)

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Megrian, D., Taib, N., Jaffe, A.L. et al. **Ancient origin and constrained evolution of the division and cell wall gene cluster in Bacteria.** Nat Microbiol 7, 2114–2127 (2022).

[doi: 10.1038/s41564-022-01257-y](https://doi.org/10.1038/s41564-022-01257-y)