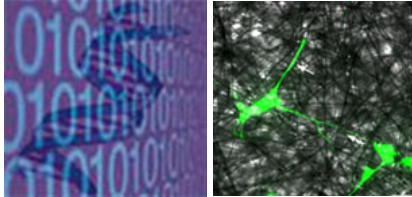




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# L.M. Biotechnologie Industriali

incontro informativo del 24-05-2018



## Synthetic Biology & Biotechnology network

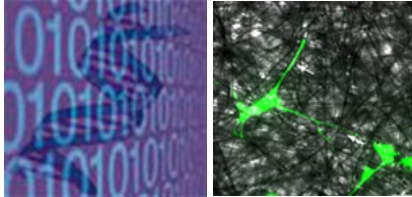
- our lab is part of the SBB net (Filippini + Bergantino + Cendron + Benedetti labs) with 20-people team + local, national and international collaborators  
(*DB, DISC, DSF, DSB, CNR NA, Paris, BZH, Ohio etc.*)
- disciplines: computational and synthetic bio(techno)logy, molecular and cellular biology, biochemistry and biophysics, structural biology & bioinformatics, nanotechnology, stem cells
- wet lab theses, bioinformatics, mixed activities, mixed labs....



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## ongoing projects ....

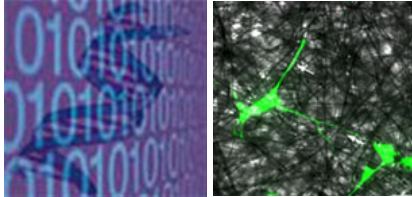
- neural differentiation and regenerative medicine
- biomimetics design (domain/motif characterizat./engineering)
- synthetic genes for proteins/domains expression
- influenza virus evolution
- protein engineering (biocatalysis)
- cell line genome editing & synth. gene complementation



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## starting or re-starting projects ....

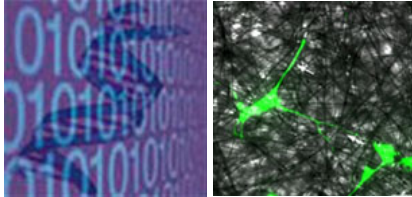
- bioremediation
- subcellular trafficking in brain development & function/disease
- subcellular trafficking in land plant evolution & special functions
- universal vaccine design for pandemic influenza
- organoids differentiation and functional studies, 3D printing
- pivotal genes in MS



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## ongoing theses (FF lab) ....

- **Allegra** (Lingo 1 & 2 syndomains as bioimimetics)
- **Alex** (L1CAM Ig syndomains as bioimimetics) + **Matteo**
- **Rudy\*** (FDH biocatalysis, computational tasks)
- **Elia** (Erasmus DK, broad-range psychrophilic enzymes)
- **Marco** (new scaffolds, 3D prints & SC different.) + **Pietro**
- **Alberto\*\*** (biomimetic peptide design & characterization)
- **Alessandro\*\*\*** (MeCP2 synthetic gene)

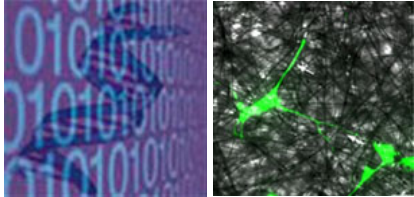
\*Bergantino tutor, Filippini cotutor \*\*Filippini tutor, De Filippis cotutor \*\*\*Filippini tutor, Giacomello cotutor



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## starting/possible new topics ....

- Organoids differentiation, device design (+ Di Liddo)
- VAMP7 variants gen.edit. & syn DNAs (+ Giacomello/Vacca)
- Phytolongins characterization (+ Alboresi/Cendron)
- Metabolic engineering (Erasmus)
- artificial ECM for 3D bioprinting (+ De Filippis, Menna)
- universal influenza vaccine (large network)
- PFAS bioremediation (+ Bergantino, Sforza, .....