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III. Diffusion de l'information scientifique et technique

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V. Brevet

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Titulaire:	Fondation Jean Dausset – CEPH
Inventeurs:	Patrick COHEN, Gilles THOMAS, Jean-Marc VICTOR
dépôt en France:	20 mars 1998- n° 98 03446
publication :	24 septembre 1999 - n°2776389
délivrance :	16 juin 2000 - n°98 03446
Validité :	20 Mars 2018.
Extensions internationales:	PCT/FR99/00640 Engagement en phases nationales et régionales aux Etats-Unis, Canada et Europe (20/09/2001). Titre officiel européen délivré le 12/06/2002. Certificat du brevet européen reçu le 13/03/2003. **US Patent 6 893 611 délivrée le 17 mai 2005.**

VI. Conférences sur invitation

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Cargèse, juin 1986
Titre: *Basic Theory of Polyelectrolytes*

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First Research Conference of The European Science Foundation on "Colloids and Interface: Polyelectrolytes", Maria Laach (Allemagne), 3-7 septembre 1990
Titre: *Screening in polyelectrolyte solutions: Theory and simulations*

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Fukui (Japon), 24-26 novembre 1994
Titre: *Flory theory revisited by numerical simulation: new results for the coil-globule transition of homo- and heteropolymers*

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Numerical studies of polyelectrolytes
CECAM (ENS Lyon) 27-29 mars 1995
Titre: *Polyampholytes*

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25 ème Rencontre Annuelle de Physique Statistique,
Cuernavaca (Mexique), 9-12 janvier 1996
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Paris, 23 juin 1998
Titre: *Dynamique de torsion de la chromatine*

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Entretiens européens de la Technologie,
Bruxelles (Belgique), 9-10 avril 1999
Titre: *Apport des microtechnologies à la biochimie combinatoire : un microlaboratoire polyvalent pour la préparation et l'analyse d'échantillons réactionnels multiples*

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Mathematical models of living systems
Dubna (Russie), 30 janvier –1er février 2002
Titre: *Age-specific incidence rate of chronic diseases as a signature of gene- environment interaction*

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DNA in chromatin: at the frontiers of biology, biophysics and genomics,
Arcachon (France), 23–29 mars 2002
Titre: *Chromatin: a tunable spring at work inside chromosomes*

[10] Conférence internationale:
European Biophysics Congress
Alicante (Espagne), 5-9 juillet 2003
Titre: *Intra and inter-nucleosomal dynamics*

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Networks in physics and biology
Orléans (France), 5-9 juillet 2004
Titre: *How DNA avoids getting wound up in eukaryotes*

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Chromatin Day
Lille (France), 19 novembre 2004

Titre: *The physics of chromatin in the regulation of gene expression*

[13] Conférence internationale:
International symposium on molecular simulations
Kanazawa (Japon) , 24-25 mars 2006

Titre: *How to model the chromatin fiber? In vivo and in vitro perspectives*

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Soft Condensed Matter Physics in Molecular and Cell Biology
Lorentz Center, Leiden (Pays-Bas), 8-12 mai 2006

Titre: *How to model the chromatin fiber? In vivo and in vitro perspectives*

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Toulouse (France), 28 août – 1er septembre 2006

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[16] Conférence nationale:
21ème Congrès de la Société Française de Biophysique
Figeac (France), 30 septembre – 3 octobre 2008

Titre: Le nucléosome dans tous ses états: les succès d'une approche fonctionnelle en modélisation des grands assemblages

[17] Conférence internationale:
Biophysics of Chromatin
Heidelberg (Allemagne), 4 – 6 février 2009

Titre: Magnetic tweezers turn nucleosomes inside-out: in vitro modeling and in vivo predictions

[18] Conférence internationale:
Horizons in Hydrogen Bond Research
Paris (France), 14 – 18 septembre 2009

Titre: Why proteins can slide along DNA and how they find their target

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Journées Interface Physique-Biologie
Lyon (France), 2 – 3 novembre 2009

Titre: Le jeu du spécifique et du non-spécifique

[20] Conférence internationale:
Annual Meeting of the Society for Mathematical Biology
Rio de Janeiro (Brésil), 24 – 29 juillet 2010

Titre: On the topology of chromatin fibers

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Transient Chemical Structures in Dense Media
Paris (France), 29 novembre – 3 décembre 2010

Titre: ***From Tangram dissection puzzles to Intrinsically Unstructured Proteins***

[22] Conférence internationale:
8th European Biophysics Congress
Budapest (Hongrie), 23 – 27 août 2011

Titre: ***In silico single molecule manipulation with rigid body dynamics: an efficient tool for modeling the mechanical properties of DNA-protein complexes***

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DNA search : from biophysics to cell biology
Safed (Israel), 11 – 14 septembre 2011

Titre: ***The physics of sliding: structural implementation of functional electrostatics***

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Genome Mechanics at the Nuclear Scale
Lorentz Center, Leiden (Pays-Bas), 10-14 décembre 2012

Titre: ***Some recent advances of the french network "ADN" on the yeast nuclear organization***

[25] Colloque international:
WORKSHOP DEFIS - Biophysics of large macromolecular assemblies: experiments and simulations
ENS-Cachan (France), 14-15 octobre 2014

Titre: ***In silico single molecule manipulations unraverl nucleosome dynamics***

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Museum National d'Histoire Naturelle, Paris (France), 28 janvier 2014

Titre: ***Topologie in silico***

[27] Colloque international:
INFLACONF: Mathematical modeling in immunology and inflammation
Université Paris-Nord, Institut Galilée, Villetaneuse (France), 10-11 mars 2014

Titre: *Aging dynamics of biological networks explains age-specific incidence curves in Crohn disease*

[28] Conférence internationale:
50 Years of Histone Acetylation. Barcelona Conference on Epigenetics and Cancer
Caixa Forum, Barcelone (Espagne), 1-2 octobre 2014

Titre: ***Chromatin fiber allostery and the epigenetic code***

[29] Colloque international:

Interlabex Symposium on Nuclear Dynamics & Organization
Institut Curie, 11 mai 2015

Titre: ***Epigenetics switches chromosomes from polymer to copolymer physics***

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CECAM Workshop : GenPhysChrom
ENS de Lyon, 22-26 juin 2015

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[31] Colloquium:

PRBB-CRG Conference
PRBB, Barcelone (Espagne), 24 juillet 2015

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[32] Colloque international :

2ème Journée de Biologie Structurale Intégrative
Toulouse, 5 octobre 2015

Titre: ***3d reconstruction and animation of chromosome architecture: when physicists plunge into the fray***

[33] Colloque international :

Self-assembly in biological systems
Tours, 22 octobre 2015

Titre: ***Molecular tangrams: myth or reality?***

[34] Conférence internationale:

Conference on Genome Architecture in Space and Time
ICTP, Trieste (Italie), 20-24 juin 2016

Titre: ***Finite-Size Scaling Analysis of Super-Resolution Imaging and Simulations of Epigenetic Domains***

[35] Conférence internationale:

Multiscale analysis and reconstruction of chromatin and nuclear organization
Centro di Ricerca Matematica Ennio di Giorgi, Pise (Italie), 22-26 juin 2018

Titre: ***Some Polymer Physics Tools for Chromosome Image Analysis***

[36] Workshop international:

The 4D Genome computational day
ENS Lyon, 13 novembre 2019

Titre: ***Persistence length of the chromatin fiber***

[37] Workshop international:

Workshop around the mitotic chromosome (https://indico.in2p3.fr/event/28533)
ENS Lyon, 4-5 janvier 2023

Titre: ***Ultrastructure of mitotic chromosomes revisited by cryo-ET and numerical simulations***

[38] Colloque international:
Première Edition des Rencontres entre le Center of Theoretical Biological Physics (CTBP) de RICE university et les biophysiciens de l'Ile-de-France
Hôtel de La Faye (Paris, France), 24-25 octobre 2023
2 communications:
Titre 1: ***On some overlooked features of chromatin***
Titre 2: ***Measuring DNA curvature and torsion in eukaryotic chromatin in situ with cryo-electron tomography***

[39] Colloque national:
Cinquième Edition du séminaire annuel du groupe "Supercoiling" du GDR ADN&G
Domaine du Lazaret (Sète, France), 6-8 décembre 2023
Titre: ***Measuring DNA curvature and torsion in eukaryotic chromatin in situ with cryo-electron tomography***

[40] Colloque international:
Deuxième Edition des Rencontres entre le Center of Theoretical Biological Physics (CTBP) de RICE university et les biophysiciens de l'Ile-de-France
Hôtel de La Faye (Paris, France), 5-6 septembre 2024
Titre: ***A simple theory of complex genetic disorders***