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Today's situation

- Limits of the electronic publishing : extreme difficulties and costs to allow publicly funded researchers to access every necessary piece of scientific data produced by colleagues in France, Europe, United States, Japan,...

- Constraints due to the selection/evaluation process.

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Some limitations and perspectives of electronic publishing of recognized fair science

- Expansion of the number of «journals» as well as publications.
- Necessities but difficulties to create and maintain dynamic links between pieces of information.
- Extreme difficulties to develop and maintain accessibility to, as well as method to analyze and evaluate, rough data that are contained in texts, images, sounds, graphic,…
- Necessary evolution from an *a priori* to the *a posteriori* evaluation of scientific production, versus coexistence of both procedures.
- High throughput technologies require specific methods and tools.

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• Today most of the evaluation of the accessible scientific knowledge is recognized to journal editorial boards/reviewers.

• Research public funding agencies are producers of new scientific knowledge that should benefit all.
Their quality and accessibility is part of their missions.

• Different coordinated and compatible initiatives are developed with public or private support.

• Emergence of a new profession : *bioinformatic engineer.*

• Special mention has to be made to the NCBI initiatives both for the interfacing of factual databases (sequences, structures,…) and links with the bibliographic database PUBMED-MEDLINE as well as on line textbooks.

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Inserm «preprint» project

Creation of a central facility to allow complete and free access to Inserm's community to all scientific information generated by Inserm supported research groups

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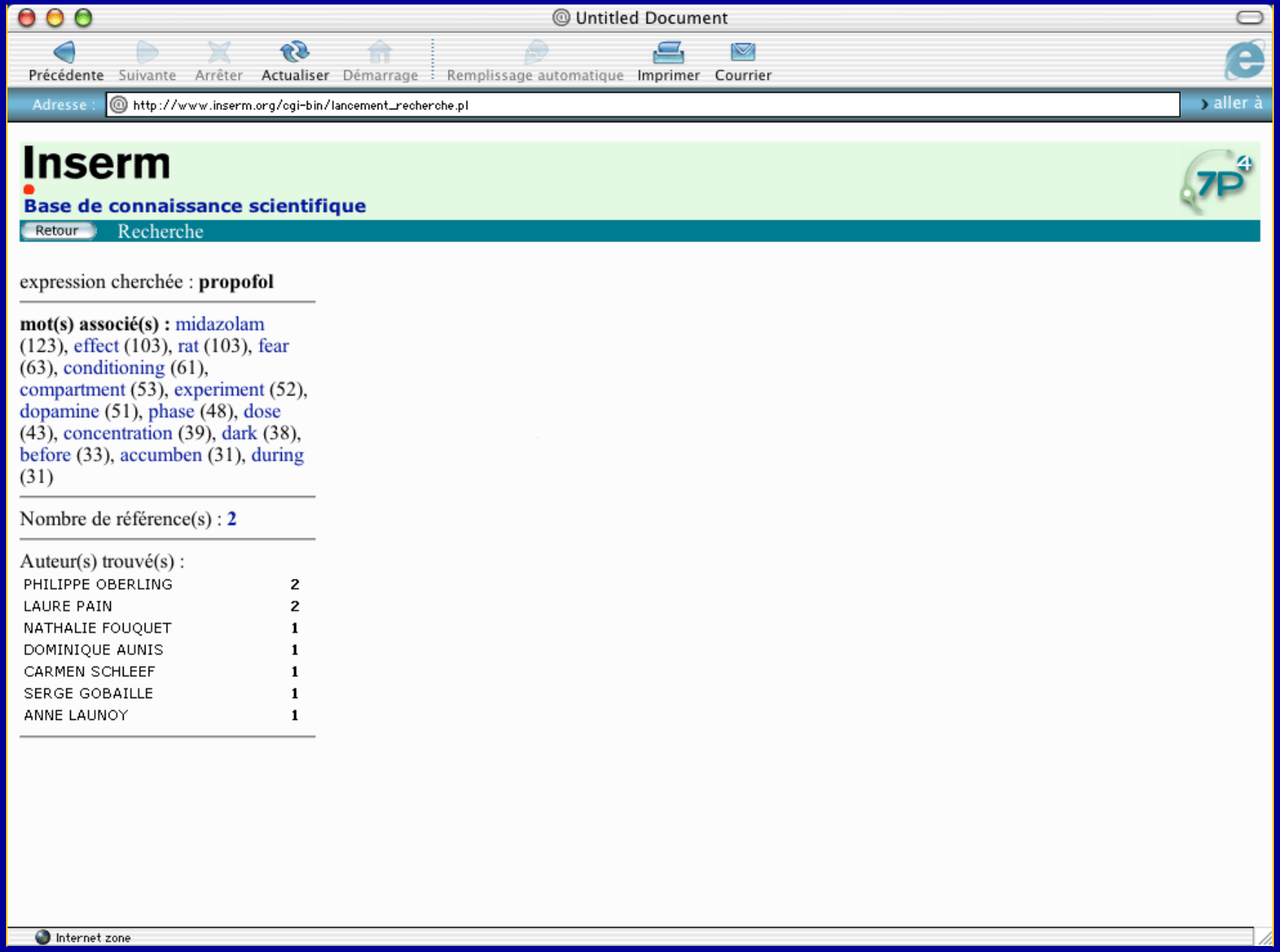
• When Inserm supported researchers are transferring their evaluated scientific production, the material is put under world wide accepted DTDs or XML unique formats and is thereafter fully searchable, linked to related information and bibliographic references.

• This material is maintained and visible to Inserm's scientific community.

• Possibility to follow the evolution of scientific projects, scientific concepts, technology expertises, of very high value to support collaborative projects and the complementarity of different approaches.

• Still to do : assemble or develop necessary computer tools to interact with the different nature of data and knowledge.



From a free text search, proposition of statistically related terms , references and researchers

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expression cherchée : **propofol**

mot(s) associé(s) : midazolam (123), effect (103), rat (103), fear (63), conditioning (61), compartment (53), experiment (52), dopamine (51), phase (48), dose (43), concentration (39), dark (38), before (33), accumben (31), during (31)

Nombre de référence(s) : **2**

Auteur(s) trouvé(s) :

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In vivo Dopamine Measurements in the Nucleus Accumbens following Nonanesthetic and Anesthetic Doses of Propofol in rats.

Laure Pain, MD1, Serge Gobaille, BR2, Carmen Schleef, BR3,

Dominique Aunis, PhD4, Philippe Oberling, MD, PhD5

Fig. 1: Microdialysis experiment: Effect of propofol 0 (Intralipids), 9, 60 and 100 mg/kg administered intraperitoneally (i.p.) on the extracellular dopamine content in the nucleus accumbens in freely moving animals.

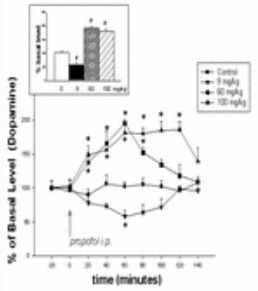

Fig.2: Microdialysis experiment: Effect of propofol 9 and 100 mg/kg administered intraperitoneally (i.p.) on the extracellular concentration of dopamine metabolites;

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Selecting one reference directly accessible, sub-sections and figures are shown

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INTRODUCTION

There is growing evidence that propofol may interact with mood states. Patients report pleasant effects upon awakening from propofol anesthesia, including elation and euphoria [1]. Under blind conditions, some human volunteers have associated subanesthetic doses of propofol with a general sensation of "well-being" (2, 3). A report described the case of an anesthesiologist who initially self-administered propofol to relieve stress, but later on became psychologically dependent on it [4]. In rats, propofol induces a pleasant affective state in the place conditioning paradigm, at subanesthetic dose as well as at recovery from propofol anesthesia (5, 6). Importantly, propofol was found recently to be self-administrated by rats at subanesthetic doses [7]. Taken together, these results largely emphasize that propofol may have potential for abuse. However, the mechanisms by which propofol acts on reward-related processes remain unclear [8].

Drugs of abuse displaying both affective and rewarding properties have supposedly produced their effects by a common action on the mesolimbic system (9, 10). Actually opiates, cocaine, and amphetamines, act directly on the mesolimbic system leading to the release of dopamine in one of its main components, the nucleus accumbens, which receive a large dopaminergic input from the ventral tegmental area. Whatever their pharmacological profile, the common final mechanism of all these drugs appears to be an increase of the concentration of dopamine in the nucleus accumbens [11].

The aim of the study was to determine to what extent the administration of propofol could modify the concentration of dopamine in the nucleus accumbens. The putative effect of nonanesthetic and anesthetic doses of propofol was assessed using *in vivo* microdialysis in freely moving rats.

Retour

Fig. 1: Microdialysis experiment: Effect of propofol 0 (Intralipids), 9, 60 and 100 mg/kg administered intraperitoneally (i.p.) on the extracellular dopamine content in the nucleus accumbens in freely moving animals.

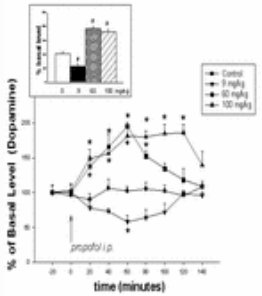

Fig.2: Microdialysis experiment: Effect of propofol 9 and 100 mg/kg administered intraperitoneally (i.p.) on the extracellular concentration of dopamine metabolites;

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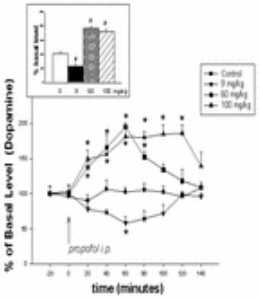

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