

# Tissue archiving: reality, recommendations, and best practices



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# Learning Objectives

- Review tissue block archiving guidelines in the US and discuss how these regulations compare to those in other countries throughout Europe.
- Examine how one laboratory achieved time-savings while improving compliance with their tissue block archiving system.
- Identify best practices towards improving your laboratory's efficiency in tissue block archiving.

# Paraffin blocks management: main challenges

## Increased block volume:

- Cancer incidence
- Aging population
- Improvement of standards of care
- Legal retention period



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- Advancement of personalized medicine
- Second opinion
- Research projects
- Clinical trials



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- Clinical trials

...with **shortage** of technicians and lab resources



# Agenda

- Part 1: Paraffin blocks archiving: legal, recommendations and facts:
  - 1 - identification
  - 2 - conditions of storage and retention period
  - 3 - retrieval tracking
  - 4 – long-term archiving economical issue
- Part 2: Evaluation of a new block management system

# Part 1: Paraffin blocks archiving: legacy, recommendations and facts

# 1- Identification!



# Patient misidentification in laboratory medicine?

- 253 root cause analysis reports from the Veterans Health administration, collected between 2000 and 2008
- Patient misidentification: 182 adverse events (72%)
- Stage of the test cycle:
  - 132 misidentification events occurred in the pre-analytic phase and
  - Only 37 events (20%) occurred in the analytic phase: 4 failure for cancer diagnosis
  - 13 in the post-analytic phase
- **Manual entry and limiting the patient identifier to accession number contributed to specimen misidentification**

# Study of mislabeling of cases, specimens, blocks and slides in 136 institutions

- Participants prospectively reviewed surgical pathology cases for 8 weeks and identified all mislabeling errors
- 1811 mislabeling occurrences:
  - 0,11% Cases: (490 of 427 255)
  - 0,1% Specimens (796 of 774 373)
  - **0,17% Blocks (2172 of 1 304 650)**
  - 0,11% Slides (2509 of 2 261 811)
- In 96,7% of cases, errors were corrected before reports were issued
- In 1,3% of errors occurrences, participants gauged that patient care was affected

# Study of mislabeling of cases, specimens, blocks and slides in 136 institutions

- 3 points in the process must be tightly controlled:
  - Accessioning
  - Transferring tissue into blocks
  - Tissue cutting and slide mounting
- The mislabeling rate was lower in institutions that :
  - **Used automatic labelers integrated with accessioning systems**
  - **had a continuous (one by one) individual-case accessioning and processing (Avoid batch work)**

# CAP guidelines: blocks must have TWO identifiers

- The accession number:
  - A letter for Histology, Cytology or Autopsy
  - The year
  - LIS accession number
  - Example: 16H-9999-1-A
- Second identifier:
  - Barcode
  - Patient name or initials
  - Patient's birthday
- If possible, the anatomical site can also be added



## 2- conditions of storage and retention period



Parmesan (parmigiano reggiano) cellar in Italy (35000 m<sup>2</sup>), owned by the Milanese bank: Credem,  
This cheese ensures the repayment of the loans of the producers

- Neither consent nor a license is required for the storage of material for diagnostic purposes for the benefit of the person from whom the tissue was removed during life.
- Pathology departments are responsible for the oversight and protection of this material

*Suzhou, China: Montpellier's twin Hospital*



# The facilities

- Legal dispositions of conservation of **medical records**:
  - stored specimens should remain intact and accessible for the full term of their retention
  - The facilities must be locked to ensure confidentiality of records
  - No alteration of temperature, humidity, no direct sun light
  - About 18°C (66°F) with humidity of about 50%
- **Regarding paraffin blocks there are very few recommendations**:
  - Temperature <26° (78°F) and > 30% and <70% humidity
- Proteins and DNA are quite stable over time but not RNA

*Xie R, Chung JY, Ylaya K, et al.. Factors influencing the degradation of archival formalin-fixed paraffin-embedded tissue sections. J Histochem Cytochem. 2011 Apr;59(4):356-65.*

## Retention periods: 3 levels

- **Law:** Very few specific legal requirements in this field: usually between 2 to 10 years according to countries
- **National college of pathologists:** established some recommendations superior to legacy duration
- **State or institution policies:** at least equal to college recommendations

# Paraffin block retention periods around the World

country	references	periods
USA	CLIA 88 Record Retention Requirements (42 CFR 493,1105)	2
	CAP guidelines (2016)	10
	New York State	20
	Duke University Health System laboratories (2016)	indefinite
Canada	Canadian Association of Pathologists	20
	Ontario laboratory guidelines	20
	Alberta Health service (2016)	30
Australia	Australian government Department of Health (2013)	10

# Paraffin blocks retention periods around the World

country	references	periods
France	private laboratories: Decree 88-280 du 24 mars 1988	10
	Public laboratories: Considered as part of medical records	20
Belgium	Code déontologie belge	30
Netherland	Dutch pathologist spciety	30
Italy	Ministry of health (2016)	10
Germany	Musterberufsordnung, MOB x10 (1998)	12
United Kingdom	Royal College of Pathologists (2015)	30
Switzerland (Geneva)	Cantonal laws	indefinitely

## Retention periods: remarks

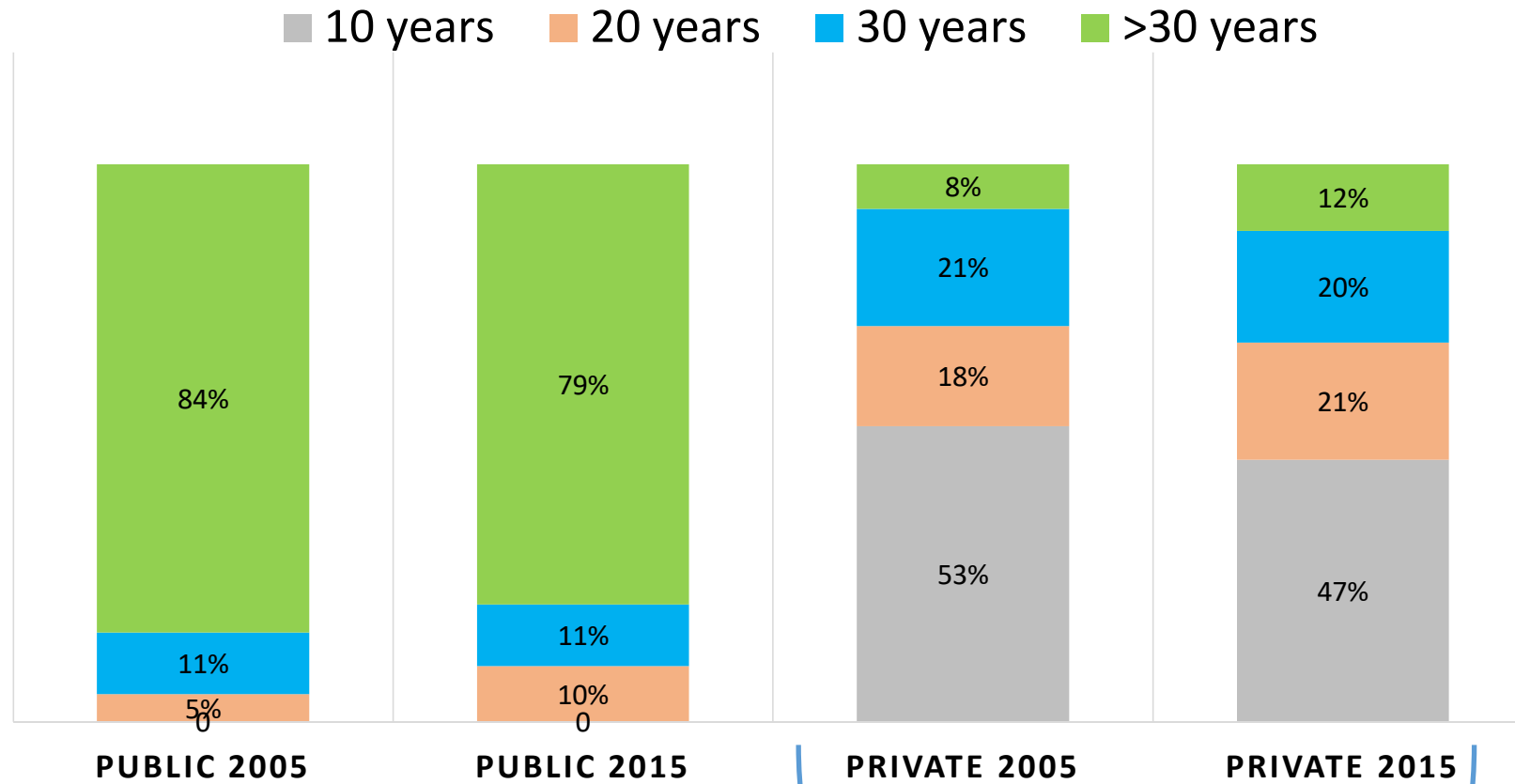
- Retention time for children is usually longer (until the child reached the age of 25). In most cases, to comply to these standards all paraffin blocks have to be retained for the extended period
- In case the initial diagnostic materials were discarded, patients are not eligible for enrollment in clinical trials

**Call for Revision of  
College of American  
Pathologists—Mandated  
Requirements for  
Retention of Laboratory  
Records and Materials**

Department of Pathology  
NICHOLAS J. VOGELZANG, MD  
Department of Hematology/  
Oncology  
Nevada Cancer Institute  
Las Vegas, NV 89135

Arch Pathol Lab Med—Vol 132, November 2008

# How long do you keep paraffin blocks? 128 French labs



Retention period



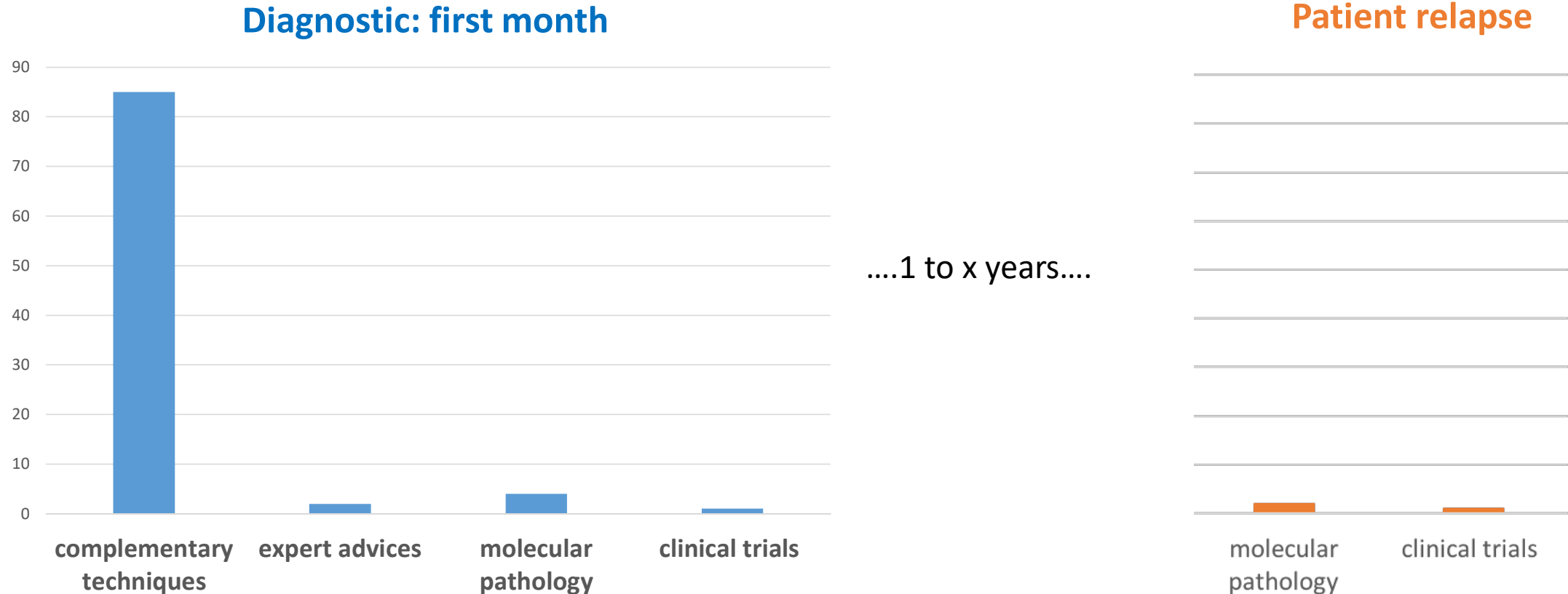
## 3 – Retrieval management



Saran: 100 000 m<sup>2</sup> of storage for 8 million products: Only Amazon distribution center in France

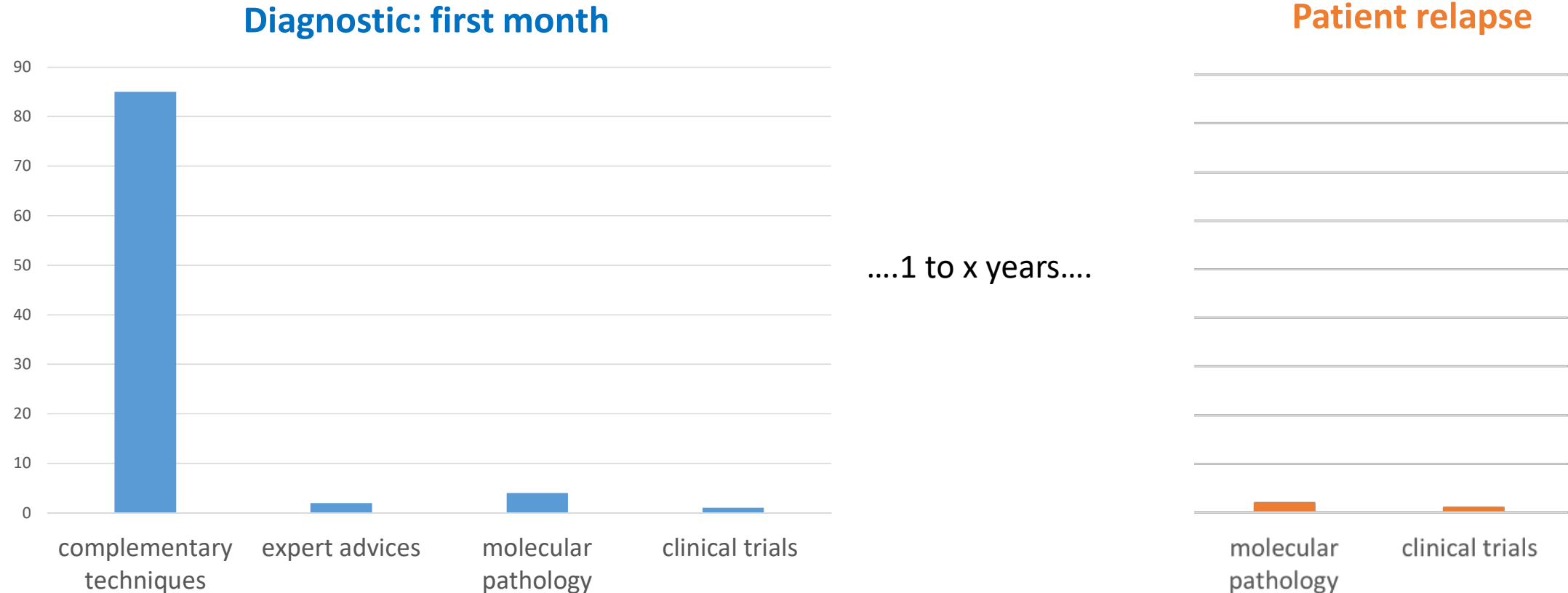
# Why and when do we need to retrieve blocks?

- For diagnosis/Prognosis/therapeutic purposes:



# Why and when do we need blocks?

- For diagnostic/Prognosis/therapeutic purposes:



- At any time: research, pedagogy... TRACEABILITY

# Mayo clinic paper 2011 – Retrieval experience

- Mayo clinic: Tissue Registry Archives Warehouse
  - Since 1907
  - 15 Million slides, 6 Million paraffin blocks
- In 2005 they realized the following:
  - 300 000 blocks, 1 million slides were generated
  - 155,000 slides / 57,701 blocks were loaned out
  - **40% of slides and 54% of blocks not returned by the due date (2 mths)**

# Mayo clinic paper 2011 – Retrieval experience

- Issues identified:
  - large numbers of slides and blocks in separate tissue collections (5 investigators maintained 56% of the total number of blocks in their own lab)
  - inconsistent identification of the requesting physician/scientist
  - Transfer between investigators without sharing information back to Mayo
  - Investigators leave the institution with no follow-up back to Mayo...

# Mayo clinic paper 2011 – Retrieval experience

- Implementation of a new tracking system with new policies:
  - who can borrow,
  - purpose of borrowed material (research, clinical, education, quality)
  - Time frames for return of material
  - Notification of overdue material
  - Penalties
- New procedures:
  - Mayo now makes investigators sign a verification form online;
  - the investigator must be authorized to request materials
  - have no overdue material outstanding

*Giannini C et al. Maintaining Clinical Tissue Archives and Supporting Human Research: Challenges and Solutions. Pathol Lab Med. 2011;135:347–353*

# Mayo clinic paper 2011 – Retrieval experience

- 2008: 206 330 slides and 51 416 blocks borrowed
  - 94% of blocks and 93% of slides were returned
  - lost: 44 slides and 25 blocks (< 0,05%)
- Staff members workload increased by 58% for slides and by 17% for blocks

**Conclusion: improvement of traceability but with a large increase of resources**

# Release and return of archived diagnostic samples for **clinical trials** purposes

- Wherever possible, derived materials from a stored tissue block (e.g. tissue sections, extracted nucleic acids) should be provided, rather than the block itself
- At least one block of diagnostic tissue should be preserved for the minimal retention time of paraffin blocks and should not be used for research, education, quality control, or any other non-diagnostic activities.

## 4 – long-term archiving: what cost?



Cellar of the “banque de France”, property of the French republic: About 2500 tons of gold, 82 billion euros are kept less than 25 meters beneath the ground in the middle of a groundwater in Paris

PubMed paraffin block retention cost

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#### Article types

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Review  
Customize ...

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Free full text  
Full text

#### PubMed Commons

Reader comments  
Trending articles

#### Publication dates

5 years  
10 years  
Custom range...

#### Species

Humans  
Other Animals

[Clear all](#)

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## Search results

Items: 0

 No documents match your search terms

## Search details

```
("paraffin"[MeSH Terms] OR
"paraffin"[All Fields]) AND
block[All Fields] AND
("retention (psychology)"[MeSH
Terms] OR ("retention"[All
```

Search

See more...

## Recent Activity

[Turn Off](#) [Clear](#)

 paraffin block retention cost (0)


PubMed

 paraffin block (1043)

PubMed

 cost and histological depository (0)

PubMed

 cost and archives (430)

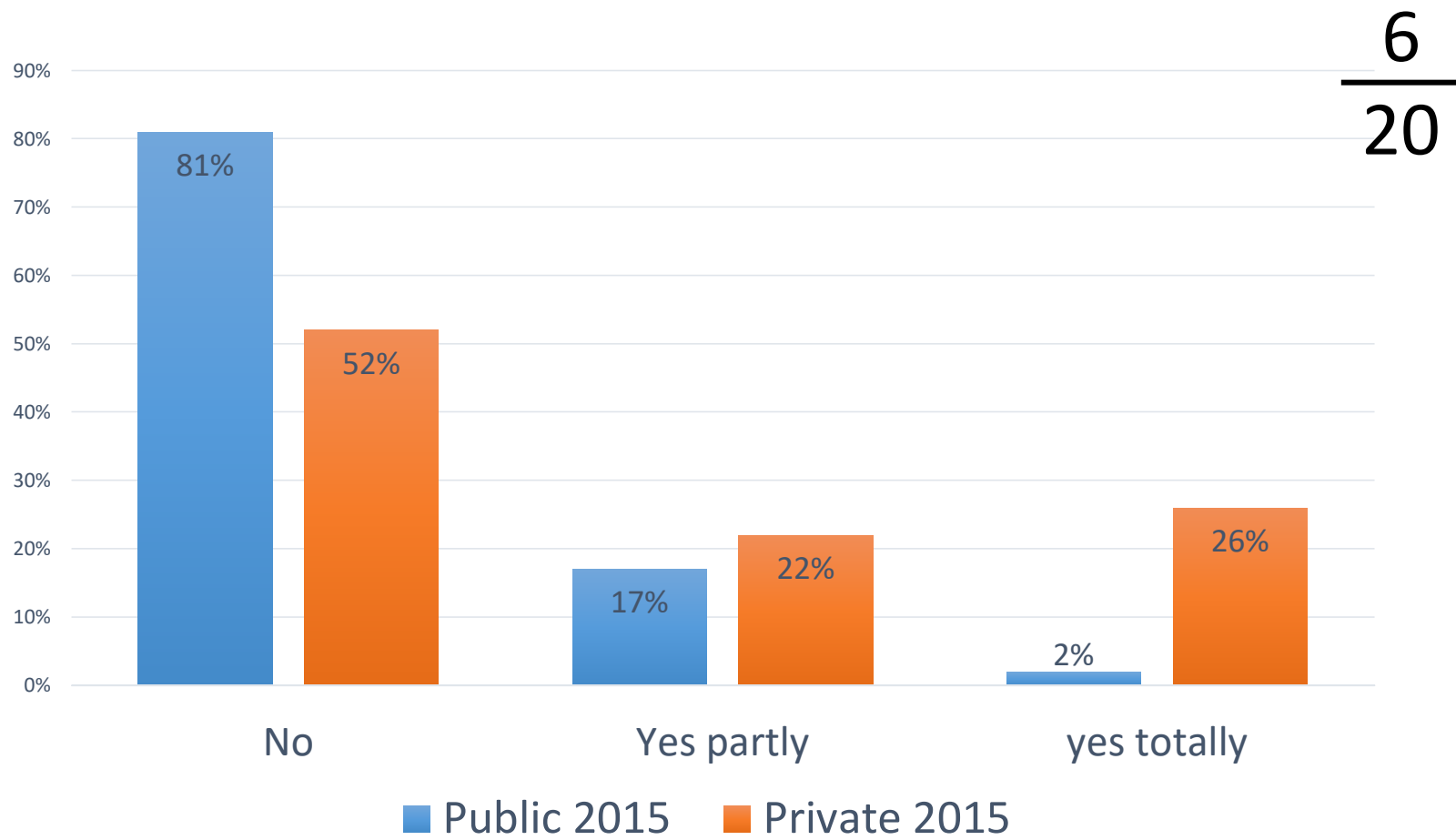
PubMed

 cost and retention block (35)

PubMed

See more...

# Do you know the cost of long term archiving in your lab?



Our long term  
storage  
experience!  
About 2 Million  
blocks in a 60m2  
(645sq feet)  
room: 20 years of  
archiving



# LONG TERM ARCHIVING

## Cost of gathering 2M blocks (est 20 years)

Items	Core Archiving	TOTAL Cost (EURO)
Storage room 130 euros/m2/year 2 millions blocks in 60 m2	390 per year x20 years	81,510
Shelves, drawers and cardboards	13,000 x 20	260,000
Headcount 10 hrs/months	2,040 x20	40,800
TOTAL - EURO		382,310
TOTAL - USD		~ 400,000

***DOES NOT INCLUDE ROUTINE MANAGEMENT – JUST LONG TERM ARCHIVING***

# LONG TERM ARCHIVING Ongoing costs

## *2M blocks – 100K per year*

Items	Core Archiving	Extra cost per year for new blocks	TOTAL per Year (EURO)
<b>Storage room 130 euros/m2/year 2 millions blocks in 60 m2</b>	7,800 <i>(*increases every year)</i>	390	8,190
<b>Shelves, drawers and cardboards</b>	0	13,000	13,000
<b>Headcount 10 hours/months</b>	0	2,040	2,040
<b>TOTAL - EURO</b>	<b>7,800</b>	<b>15,430</b>	<b>23,230</b>
<b>TOTAL - USD</b>	<b>8,345</b>	<b>16,509</b>	<b>~ 25,000</b>

Every 5 years about 125,000 USD of cost

***DOES NOT INCLUDE ROUTINE MANAGEMENT – JUST LONG TERM ARCHIVING***

# Block archiving reimbursement?

- The AMA CPT system has a block retrieval code: 88363
  - “Molecular assays are now being used as a part of selecting specific antineoplastic treatment regimens, which require pathologists to retrieve previously diagnosed surgical pathology cases and determine appropriate material(s) for these assays.”
  - Medicare Reimbursement for CPT 88363 includes a Medicare Non-Facility Payment of \$22.88 and a Facility Payment of \$19.67
- **Long term archiving is an unfunded mandate for pathological labs**

# Tissue archiving: take home messages

- **Identification:**

- Use automatic labelers connected with LIS
- Avoid batch work
- Use two identifiers (accessioning number/bare code)

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- **Retrieval tracking:**

- Increase need to de-archive blocks
- Difficult to improve without additional resources

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- **Economical issue:**

- Very few data but more expensive than we think

## Part 2: Evaluation of a new block management system

# Our department of Biopathology

- 30 000 biopsies and surgical samples
- 10 000 cytological samples/year
- 110,000 paraffin blocks/year
- IHC, FISH, HRM, NGS..

- 10 pathologists, 3 molecular biologists, 8 residents
- 17 + 4 technicians, 3 lab aids, 4 secretaries
- Biobanking: 4 people



# Pilot site for testing automation of paraffin block management

- Medical Device Rating department
- Cooperation in the development (contract 8605 – 4/12)
- Testing of prototypes
- Installed in July 2014



CHRU MONTPELLIER  
CENTRE HOSPITALIER REGIONAL UNIVERSITAIRE

2015

Meilleurs vœux  
Les 1000 hospitaliers  
du CHRU de  
Montpellier vous  
présentent leurs  
meilleurs vœux pour  
l'année 2015.  
Visualisez la carte de  
vœux animée dans la

PATIENTS ET VISITEURS   ACTEURS DE SANTÉ   **CHERCHEURS**   ETUDIANTS   A PROPOS DU CHRU

Organisation  
Recherche Clinique

Plateformes Recherche  
Appels à projets

Valorisation et  
Médico-économie



Un réseau de moyens expérimentaux  
une expertise clinique, biologique et technique avec accès au patient

Recherche

Qui sommes nous ?

La recherche au CHRU de Montpellier s'organise au sein de laboratoires, d'instituts, de centres de collections biologiques, implantés au cœur de l'établissement et dotés de moyens expérimentaux de pointe, servis par des équipes reconnues.

Organisées en plateformes, ces ressources permettent aux équipes de progresser vers leurs objectifs de recherche, avec un accès au patient. Ces moyens sont ouverts aux partenariats publics et privés. Des équipements de dernière génération accompagnés par une expertise médicale, biologique et technique sont proposés aux professionnels de la santé, aux équipes de recherche publiques et privées, aux partenaires industriels, aux porteurs de projets, pour la mise en œuvre de collaborations de recherche et développement (R&D), la réalisation de prestations, la mise à disposition de ressources technologiques pour un essai clinique, ou le développement de banques de données cliniques.

Chaque plateforme produit une offre spécifique qui va de la réalisation d'une analyse ou d'un transfert de ressources biologiques pour la recherche, à la prise en charge de projets collaboratifs. Elle intervient également dans des actions d'expertise-conseil, d'évaluation de dispositifs médicaux, de mise à disposition de moyens avec ou sans accompagnement, d'accueil d'entreprises émergentes et de formations ciblées.

Quelques mots clés

Analyse pangénomique de l'expression des gènes, Analyses et expertise en protéomique clinique, Cession de ressources biologiques humaines, Production de cellules souches pluripotentes induites, Analyse cytogénétique des cellules souches, Séquençage NGS, Protocoles de recherche clinique en imagerie IRM 3T, Isolement et recueil de cellules spécifiques pour analyses ADN, Etudes en nutrition humaine, Agro-alimentaire, Collection de plus de 6500 souches de Leishmania, Exploration de la maladie résiduelle en cancérologie, Analyse lymphocytaire et quantification virale, Immuno-diagnostic, Vaccination anti tumorale, Isolement et cession d'îlots pancréatiques humains...

Contact

Yves El KAIM, Coordonnateur des Plateformes de recherche  
Direction de la recherche et de l'innovation  
Tél : 04 67 33 09 50  
Hôpital la Colombière Pavillon n° 32 - 39 avenue Charles Flahault - 34295 Montpellier cedex 5  
plateformes@chu-montpellier.fr

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Mise à disposition de moyens

Expertise Conseil

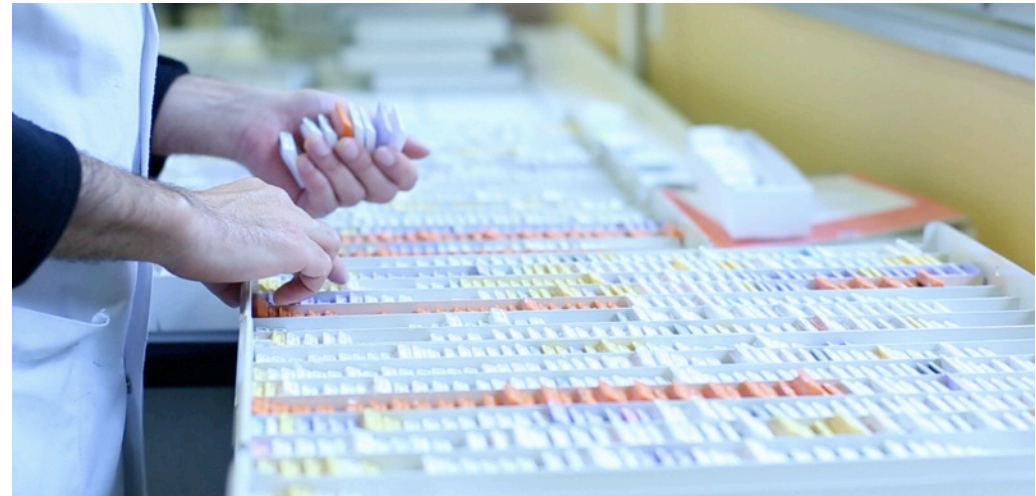
Formations ciblées

# 1 - Block management in our lab before automation



## First step: block sorting

- blocks were sorted by numerical order in metallic drawers
- Drawers took up a lot of space
- Need to move a lot of blocks when large cases came in late (autopsies, fetal pathology, bone specimens)
- Risks for misfiling of the blocks



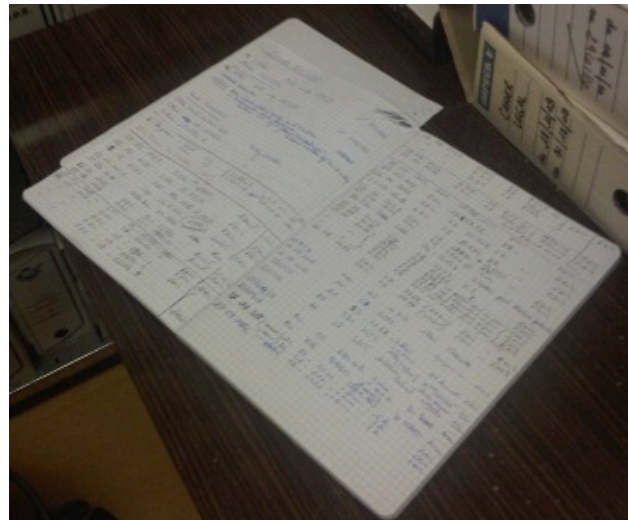
# Second step: block retrieval

- Manual removal of blocks without securing adequate space for returning
- Manual retrieval and re-archiving
- Inconsistent use of block registry (only used for long term removal of blocks)



Old blocks to file but I don't know where they go?

BLOCS ET LAMES SORTIS DU LABORATOIRE POUR AVIS						
ANNEES ANTERIEURES						
Indices Blocs	Nbres lames	Description lames (Indices, HE, IHC, Lames blanches)	Destinataire	Objet	Medecin Anapath	Date Sortie
B	1	HE	DR Frederic Bibeau (navette ICM)	AVIS: P27	Dr RAMOS	01/12/2014
1A	16	15 IHC + 1 HE	DR TRAVERSE - PIERRE BENITE (CGEB)	AVIS	DR SZABLEWSKI	02/12/2014
1B	16	14HC + 2HE	PR CORNRE - BORDEAUX (CGEB)	AVIS	DR DELFOUR	11/12/2014
	26	2 HE + 23 IHC (H13.14845)	DR COPE (CGEB)	AVIS	DR SZABLEWSKI	15/12/2014
	26	2 HE + 23 IHC (H14.20800)	DR COPE (CGEB)	AVIS	DR SZABLEWSKI	15/12/2014
	6	1 HE + 5 IHC	PR CRIBIER (CGEB)	AVIS	DR CURAND	15/12/2014
10	14	12 IHC + 2 HE	PR CORNRE	RELECTURE RRaPS	DR DELFOUR	15/12/2014
1A	13	1 HE + 12 IHC	PR CORNRE	RELECTURE RRaPS	DR FERROCHA	15/12/2014
2C	4	blanches	DR PEDEUTOUR	Amplification MCM2	DR DELFOUR	17/12/2014
	13	2 HE + 11 IHC	PR CORNRE - BORDEAUX (CGEB)	AVIS	DR DELFOUR	22/12/2014
1A, 11B, 2A, 11B, 1A	15	5 HE + 10 IHC	DR RANCHERE - LYON (CGEB)	AVIS	DR DELFOUR	22/12/2014
A,B,C,D,E	23	7 HE + 23 IHC	PR BROUSSET (CGEB)	AVIS	DR ROUSSET	23/12/2014
1A			DR CAYE-ELUDE (CGEB)	AVIS	DR ROUSSET	23/12/2014
1A			DR CAYE-ELUDE (CGEB)	AVIS	DR ROUSSET	23/12/2014
TU	2	2HE	PR CRIBIER - STRASBOURG (CGEB)	AVIS	DR DELFOUR	23/12/2014
2F, 2J, 2J	4	1 HE + 3 IHC	PR CORNRE - BORDEAUX	MCM2	DR RIGAU	06/01/2015
1A	21	9 IHC + 12 HE	PR CORNRE - BORDEAUX	MCM2	DR DELFOUR	06/01/2015
1A	1	1HE	DR RANCHERE - LYON (CGEB)	Relecture	DR DELFOUR	06/01/2015
1A, 1K, 1K	14	3 HE + 11 IHC	DR RANCHERE - LYON (CGEB)	Relecture	DR DELFOUR	06/01/2015
1A, 1B	14	2 HE + 12 IHC	DR RANCHERE - LYON (CGEB)	AVIS	DR DELFOUR	07/01/2015
1A	11	1 HE + 10 IHC	DR RANCHERE - LYON (CGEB)	AVIS	DR DELFOUR	07/01/2015
1A	7	1HE+2colo+4HC	DR MC GREGOR (CGEB)	AVIS	DR RAMOS	06/01/2015
1C	7	1HE+8HC	PR URO-COSTE (CGEB)	AVIS	DR RIGAU	06/01/2015
	62	48HC+3HE	PR LABROUSSE - LIMOGES	AVIS	DR RIGAU	07/01/2014
	17	3 HE + 14 IHC	PR CORNRE - BORDEAUX (CGEB)	AVIS	DR DELFOUR	06/01/2015



## Third step: final archiving

- Once a week, blocks were transferred from metal drawers into cardboard drawers for long term storage

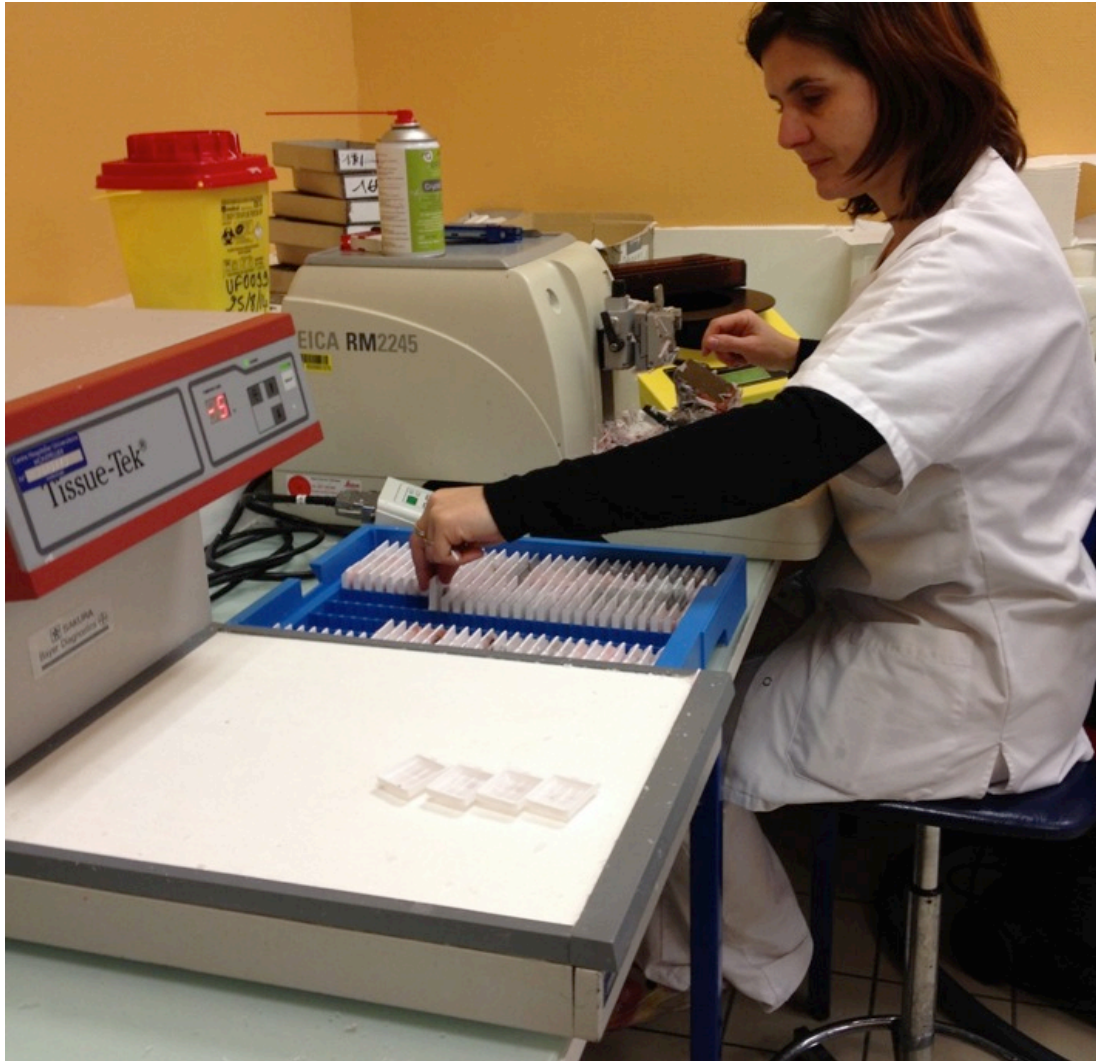


Function	Tasks	FTE		
Lab Aids	<ul style="list-style-type: none"> <li>• Block sorting</li> <li>• Long term transfer</li> <li>• Long term retrieval</li> <li>• Manual register</li> </ul>			
Lab Technician	<ul style="list-style-type: none"> <li>• Block research for complementary techniques</li> <li>• Manual register</li> </ul>			
Secretaries	<ul style="list-style-type: none"> <li>• Block research for external requests</li> <li>• Database management</li> </ul>			
Pathologists	<ul style="list-style-type: none"> <li>• Block research for educational and scientific works</li> </ul>			
<b>TOTAL</b>		<b>1.4</b>		

## 2 - Paraffin block automation





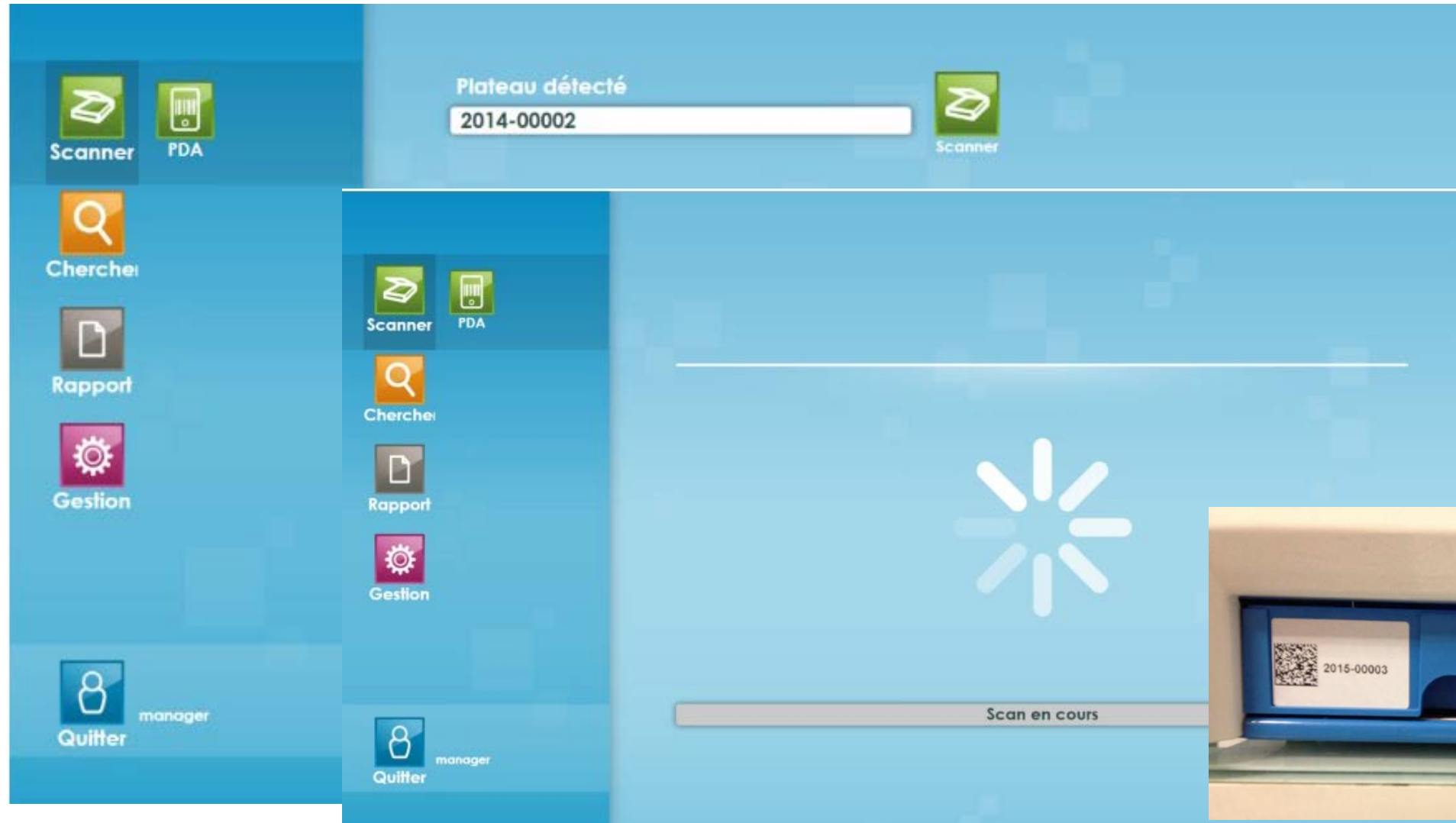


## First step:

- the blocks are stored in a tray at the cutting station (240 blocks/tray).
- They are placed in the tray in any order (time-saving)
- Once the technicians have finished cutting they scan the tray in FINA

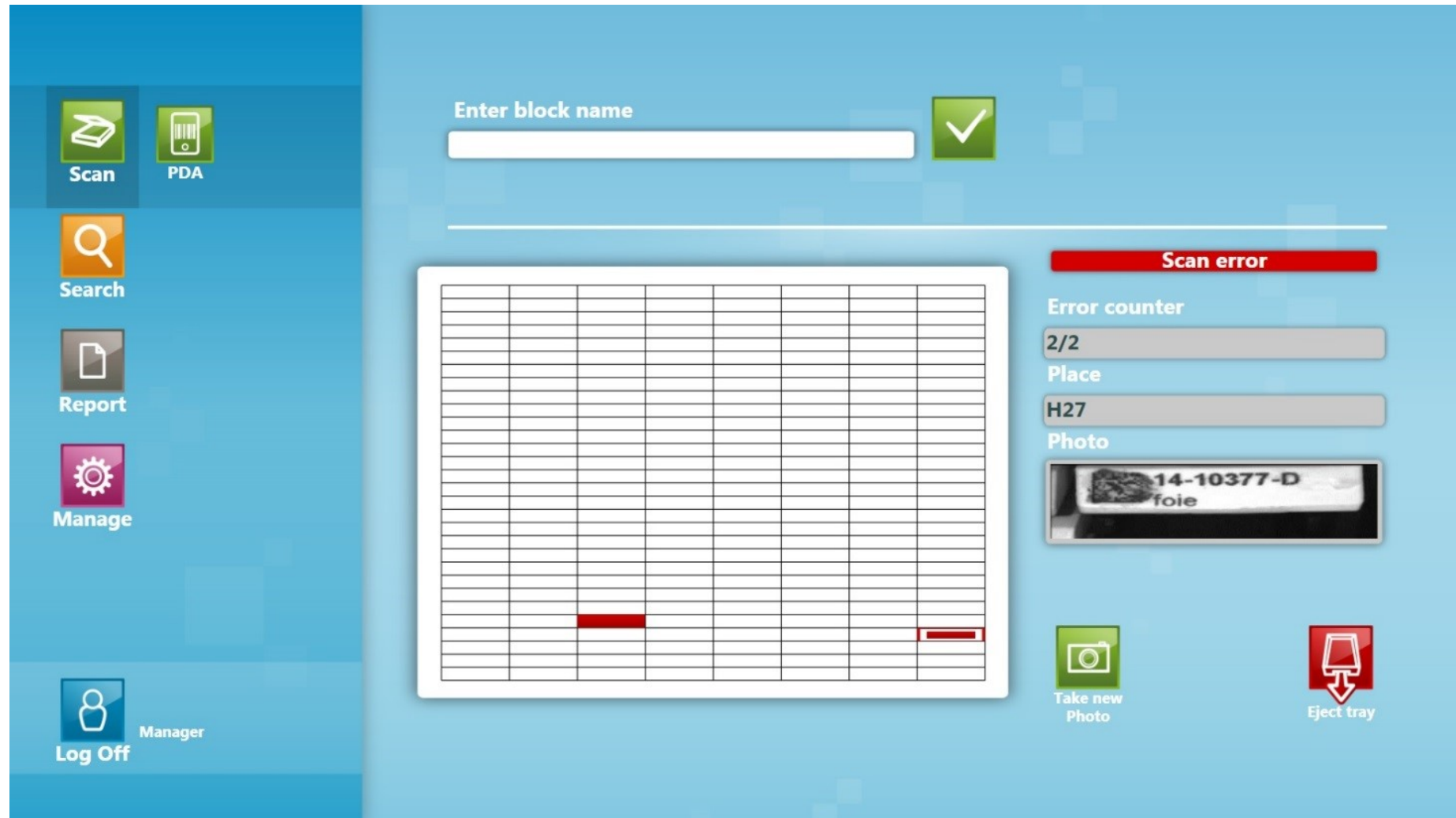


When we insert a new tray, the scanner will detect it and ask us to print a new label to stick on the tray



Scanning time varies from 2 to 6 minutes due to number of blocks, quality of printing and cleanness of the paraffin block.

If the barcode is damaged, a picture of the block is taken and it can be entered manually in the software



Percentage of unread blocks: 242/26400 (< 1%)  
Primary reason: paraffin covering the barcode



Scanner



PDA



Chercher



Rapport



Gestion



manager

Quitter

Assigner plateau à :



- ☐ Final
  - Room 1
  - Room 2
  - Room 3
  - Temporary



Imprimer  
rapport  
scan

## 2<sup>nd</sup> step: searching for blocks

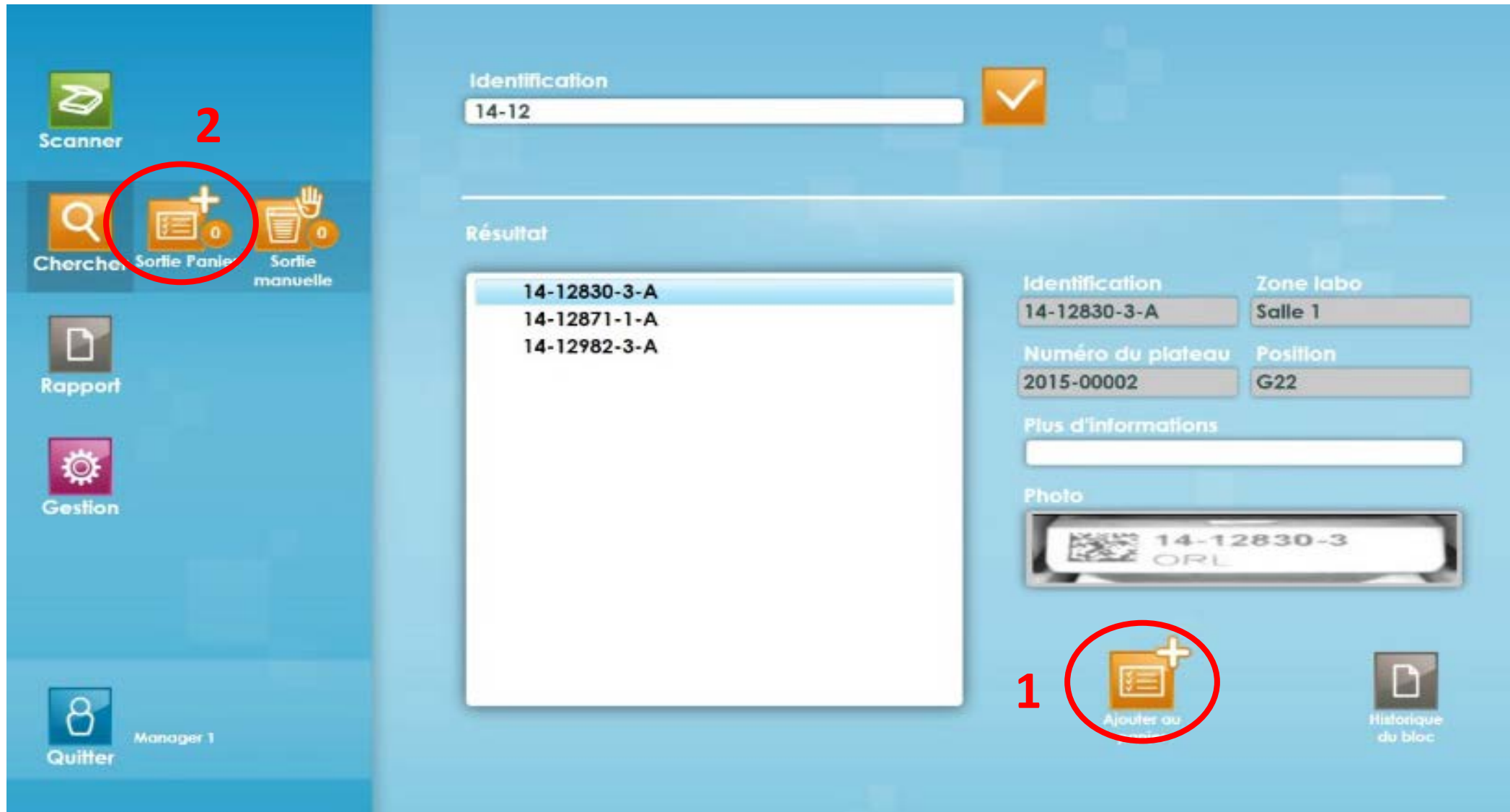
The interface is divided into a left sidebar and a main content area. The sidebar contains icons for 'Scanner', 'Chercher' (Search), 'Sortie Panier' (Basket Exit), 'Sortie manuelle' (Manual Exit), 'Rapport' (Report), 'Gestion' (Management), and 'Quitter' (Quit) with a 'Manager 1' label.

In the main content area, the 'Identification' field contains '14-12' with a confirmation checkmark. Below this, the 'Résultat' (Result) section displays a list of three items: '14-12830-3-A', '14-12871-1-A', and '14-12982-3-A'. To the right of the list, detailed information for the selected item is shown in a table:

Identification	Zone labo
14-12830-3-A	Salle 1
Numéro du plateau	Position
2015-00002	G22

Below the table, there is a 'Plus d'informations' (More information) field and a 'Photo' section showing a photograph of a block with a QR code and the text '14-12830-3 ORL'. At the bottom right, there are two buttons: 'Ajouter au panier' (Add to basket) and 'Historique du bloc' (Block history).

Selected blocks are added to the picking list (1)



Once the list is completed it's exported to the PDA (2)

For each block, we can log into the system the reason for removing it and the expected duration of time it will be out. Next, we can have alerts requesting any delays in re-archiving it

Scanner

Chercher

Rapport

Gestion

Manager 1

Quitter

Identification

14-12830-3-A

Demandeur

Docteur 1

Raison

Raison 10

Date de retour

13/07/2015

Identification

14-12830-3-A

Zone labo

Salle 1

Numéro du plateau

2015-00002

Position

G22

Plus d'Informations

Photo

Effacer

Ajouter au panier

Ajouter à sortie manuelle

Retour

Blocks removed are scanned with the PDA ensuring all needed information is captured in the database



**Exit Blocks** Back

Lab Zone **Temporary**

Tray **2014-000001**

Blocks **0/4**

Block number	Pos
14-10006-1-A	C9
14-10051-1-D	G24

Scan the barcodes to exit the blocks above

Scan





When ready to be returned, the pulled blocks are replaced in the current tray and re-scanned

## 3<sup>rd</sup> step: long term storage

- We've created 2 storage zones
- Trays are stored in cabinets in the lab zone for 2 years
- Afterwards, we transfer the trays to cupboard sleeves in our long storage zone





# Saving of 1 FTE time


Function	Tasks	FTE	Impact Automation	New FTE
Lab Aids	<ul style="list-style-type: none"><li>• Block sorting</li><li>• Long term transfer</li><li>• Long term retrieval</li><li>• Manual register</li></ul>			
Lab Technician	<ul style="list-style-type: none"><li>• Block research for complementary techniques</li><li>• Manual register</li></ul>			
Secretaries	<ul style="list-style-type: none"><li>• Block research for external requests</li><li>• Database management</li></ul>		X	
Pathologists	<ul style="list-style-type: none"><li>• Block research for educational and scientific works</li></ul>		X	
<b>TOTAL</b>		<b>1.4</b>		<b>0.4</b>


## 3 - Traceability


# Block history


  
Scanner


  
Chercher

  
Sortie Panier

  
Sortie manuelle


  
Rapport

  
Gestion

  
Quitter


01014510

Identification



Résultat

16.15213-01A

 16.15213-01B

16.15213-01TU

Identification


Zone labo


Número du plateau

Position


Plus d'informations

Photo


  
Ajouter au panier

  
Historique du bloc


# Block history




Scanner




Chercher




Sortie Panier 25




Sortie manuelle 0



Rapport



Gestion




Quitter

01014510

Identification

16.15213



Résultat

16.15213-01A

← 16.15213-01B

16.15213-01TU

Demandeur

Dr Rousset

Raison

Avis

Date de sortie

20/06/2016


Date de retour

20/07/2016


Plus d'informations

decaussin


Photo



☐ Bloc non épuisé



Ajouter au panier



Historique du bloc

# Block history



Scanner



Chercher



Rapport



Gestion



Quitter

01014510

Rapport

Historique du bloc



Ok

mercredi 18 janvier 2017

12:24:31

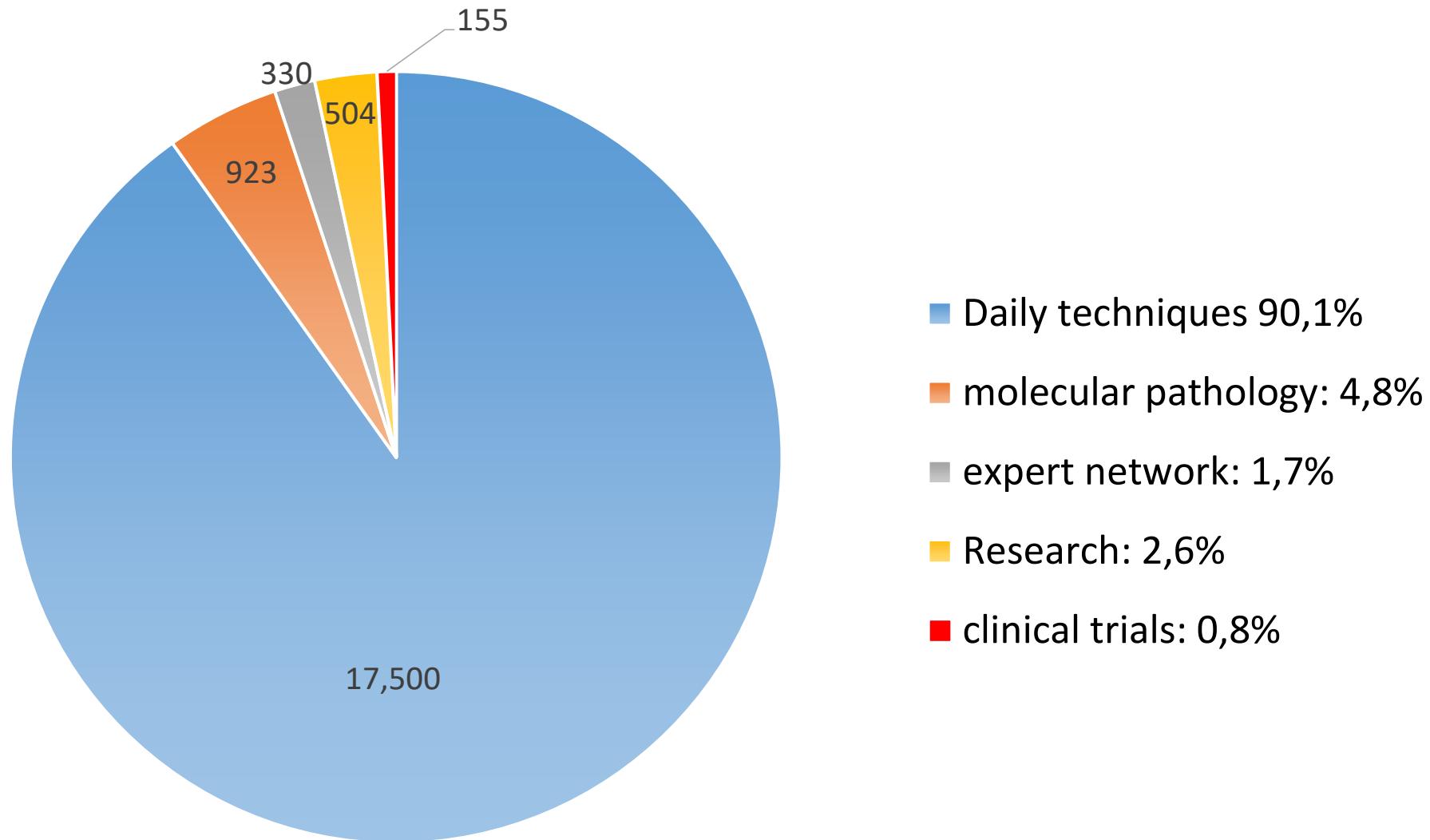
Historique du bloc: 16.15213-01B

Date	Opérateur	Événement	Détails
16/06/2016 14:21:35		Déplacement de plateau	Plateau : 2016-00237 Nouvelle zone : Temporaire Laboratoire
16/06/2016 14:32:44	01596880	Scan de bloc	Plateau : 2016-00237 Position : C27
17/06/2016 11:13:55		Changement des informations	Nouvelle information : decaussin
17/06/2016 11:13:55	01500279	Scan de bloc	Plateau : 2016-00237 Position : C27
20/06/2016 09:48:07	01500279	Sortie manuelle	Demandeur : Dr Rousset Raison : Avis
10/08/2016 13:09:38		Déplacement de plateau	Plateau : 2016-00237 Nouvelle zone : Couloir Laboratoire



Imprimer  
rapport

# How many blocks did we retrieve in 2016? And why?



About 20% (19412) of blocks were retrieved in 2016 so a tight management is needed

# Due blocks out of the system at the end of 2016

- Second Opinion, expert consultation: 138
- clinical trials: 45
- External research (biobank): 29 ( + 360 definitive exits)
- Internal research: 75
- Externalized techniques: 16
- Blocks used for positive controls: 4

With information about the recipient, the protocol number etc....

# In conclusion



- **Gain of resources**

- we are saving 1 FTE in time savings
- we are working on the connection of FINA to our LIS

- **Block traceability**

- Know where blocks are at all times
- Who, when and why
- Reduces errors

- **Frees up space in the lab**

- 4 linear meters

- **Improves safety and regulatory**

- Minimizes risk of loss
- Allows for block QC
- Unique tray for long-term storage