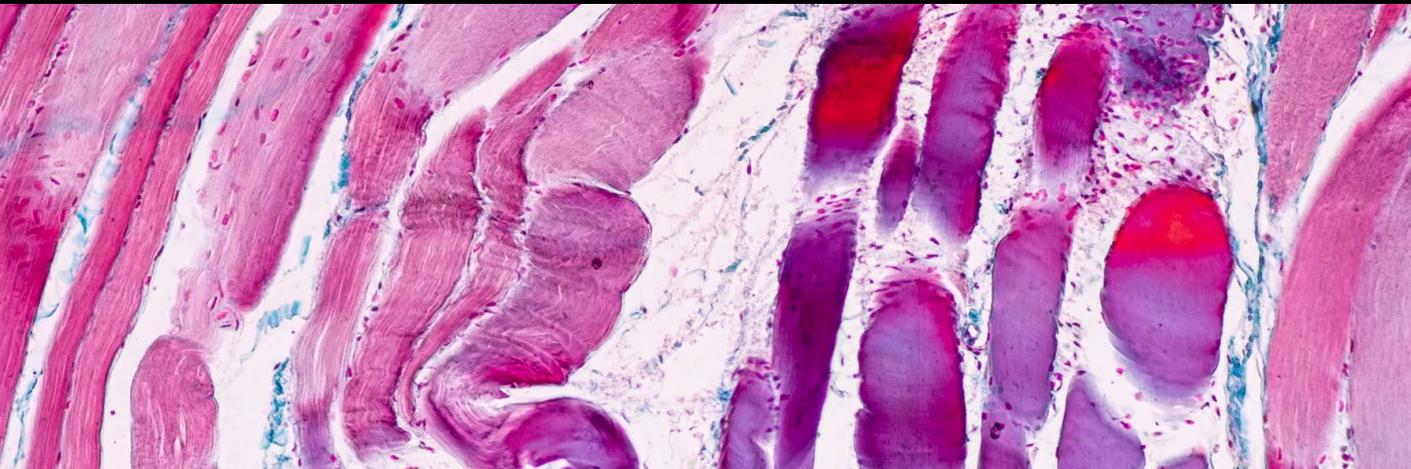


Slide Basket Transfer System (SBTS)

For Gemini AS & ClearVue

Helen Johnstone

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Enhancing precision
cancer diagnostics

The Gemini AS automated slide stainer

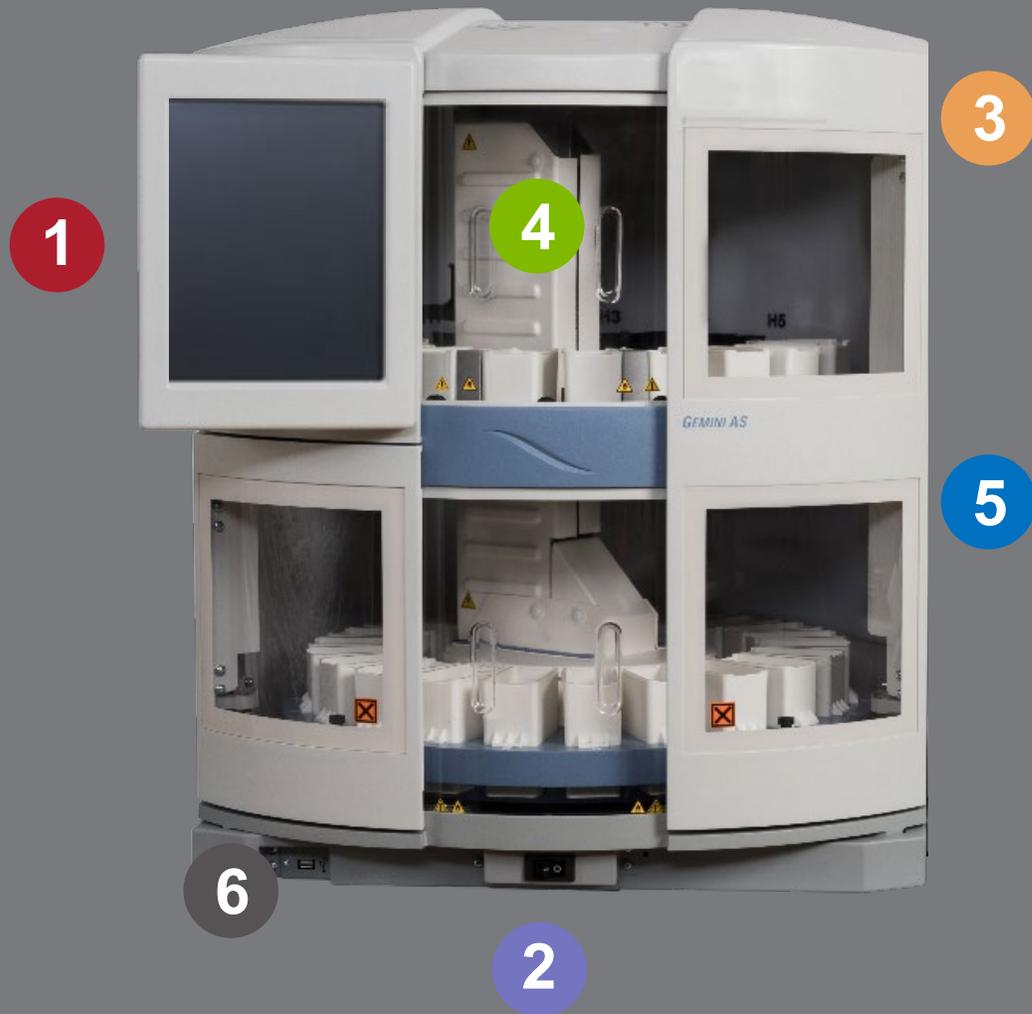
- A multi-dimensional stainer for maximum efficiency
- Performs multiple protocols simultaneously
- No reduction in throughput even with multiple baskets and protocols
- 240 slides/ hour stated throughput

Heated: A8150001
Unheated: A8150002

- Software optimisation calculates the quickest throughput
- Duplicate reagents assignment to further reduce staining time
- Load-on-demand with urgent start option
- Allows users to prioritise “urgent” samples
- Smallest footprint in its class – placed next to sectioning for optimal workflow
- Auto-allocation – Optimises reagent usage
- Five heated stations allow for heavy workloads without an extra offline oven



Features



1 Smart Software, touch-screen

Easy to operate; Runs up to 12 simultaneous protocols & Configures programs to run in shortest time

2 Small Footprint

31" x 28" (79 x 72 x 89,3 cm), two tier, compact design

3 Ventilated

Internal charcoal filter

4 LED lighting in Chamber

Easy to see and change out reagents

5 Reliable

Over 450 days MTBF; Battery Backup – 40 minutes

6 USB Port

Easily transfer data to/ from the Gemini AS. Eliminates the need to reprogram previously used protocols

The ClearVue automated coverslipper

- Overcoming workflow obstacles with intelligent design
- Handles up to 11 racks simultaneously; coverslip 300 slides per hour
- Optional barcode scanner

Product Number:
A79200001

- Colour-coded racks for easy identification
- Pre-loaded coverslip holders, simple/safe to load
- Automatic adjustment of mountant volumes
- Downdraft, solvent filter and battery back-up
- Multidisciplinary, e.g. histology & cytology
- Maintains a xylene-rich atmosphere





1 Load-on-Demand

- Automatically transfers baskets from the SBTS
- Easily load slide baskets and ClearVue does the rest

2 Specimen Recognition

- Automatically identifies cytology and histology samples to deliver the correct level of mountant

3 Prevents Bottlenecks

- Ability to hold five slide baskets before needing to be unloaded so lab can focus on other tasks

4 User-Friendly Touch-Screen Portal

- Smart user-interface from a touch-screen panel
- Software monitors the type of slide preparation, slips dispensed & number of baskets waiting for coverslipping

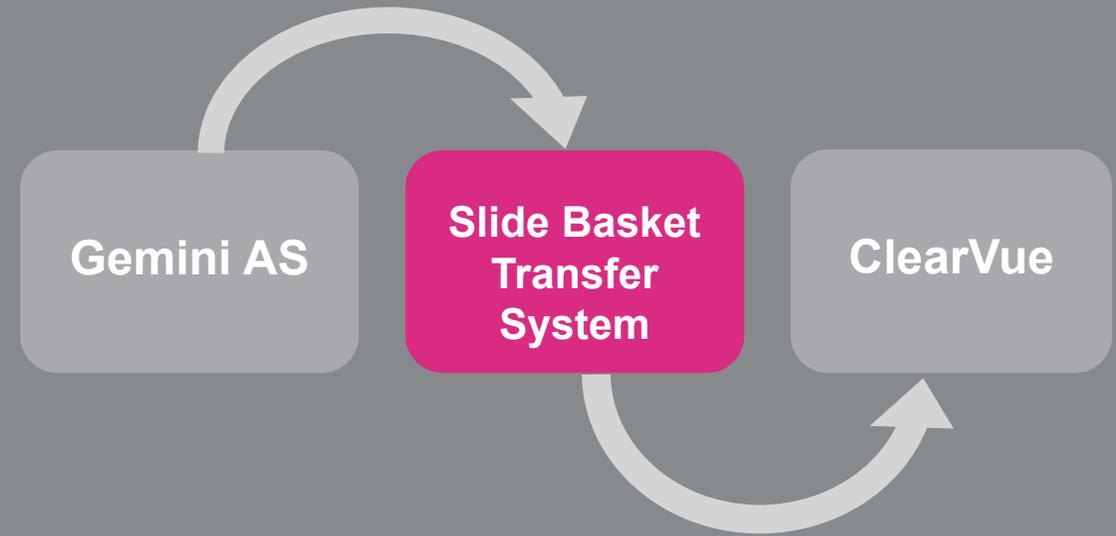
5 Ventilated

- Internal charcoal filter eliminates need for ventilation or in a hood

The Combined System



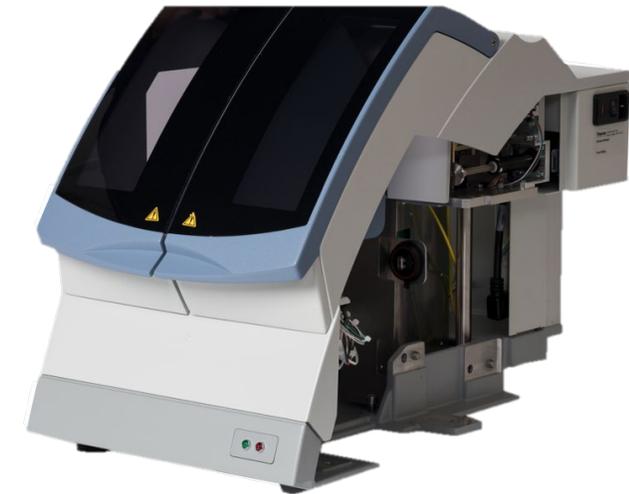
The combined system from EpreDia offers outstanding staining and coverslipping quality and throughput, while helping to create a safer environment for laboratory employees and providing safety solutions to help enable health care providers in a cost-effective way.



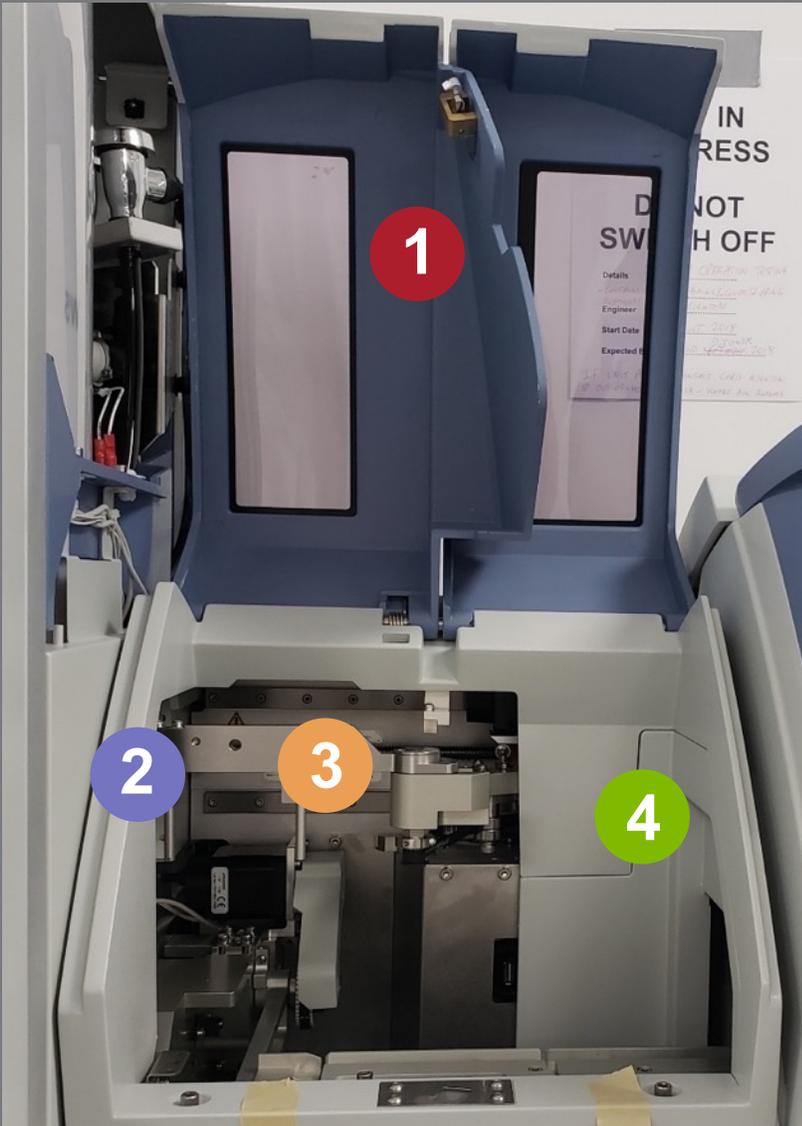
The Slide Basket Transfer System (SBTS)

- The Slide Basket Transfer System (SBTS) is a basket transfer station
- It is an accessory used together with the Gemini and ClearVue
- It connects Gemini AS and ClearVue instruments to give a combined unit

**Product Number:
A8450001**



Features



- 1 Two cover panels for the SBTS
- 2 Hopper transfer chamber from the Gemini AS
- 3 Slide Basket Transfer System Arm
- 4 Hopper transfer to ClearVue



Epredia Combination Solution

Interactive [Video](#)

GEMINI AS

Quantix

Features and Benefits



- 1 Easy Loading**
Load the slide basket in the orientation desired to transfer or operate as single instrument
- 2 Select the Correct Protocol**
Run up to 12 simultaneous protocols
- 3 Quick Transfer**
Slide baskets transferred in 28 seconds
- 4 Completion Chamber**
Alerts when slide basket is stained and coverslipped

Prevent bottlenecking by allowing five slide baskets to complete before they need to be removed

COMPATABILITY

- Gemini AS stainers and ClearVue coverslipper manufactured after February 2018 have the necessary connections to connect the SBTS.
- Units made prior to February 2018 would need to be replaced.
- SBTS can be purchased as an “add-on” – i.e modular

CHANGES

- Nothing has changed with the function or performance of Gemini AS or ClearVue.
- The SBTS simply makes the two units into one combination unit.
- Gemini AS has been updated- two holes for a magnetic sensor (& framework change).
- The SBTS will only operate if connected to the Gemini AS and ClearVue units.
- ClearVue capacity is 6 baskets when connected to the SBTS.

NO STAND-ALONE FUNCTION

- The Gemini AS and ClearVue will remain able to function as stand-alone units.
- The SBTS cannot perform without both the Gemini AS and the ClearVue connected.
- The SBTS is an accessory – no separate Declaration of Conformity.

Three Step Process

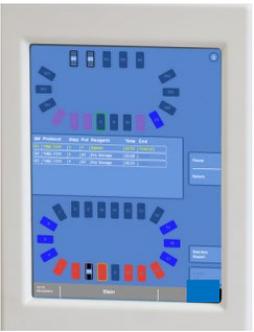
Step 1

Place side basket into Gemini AS slide stainer



Step 2

Assign program for the slide basket



Step 3

Remove slide basket from ClearVue coverslipper



Typical H&E Protocol

20 slide basket

Staining – 45 minutes

Transfer – 28 seconds

Coverslip – 4 minutes

Less than 1 hour

TOTAL: 49 minutes 28 seconds

- **Errors**
- **Employee time**
- **Exposure**

1. Errors Manual errors due to removing slide basket from Gemini slide stainer & placing it in ClearVue coverslipper.
Dropping slide baskets

2. Employee Time
Decreased productivity
Slower completion of other tasks

3. Exposure to Fumes and Drips
Higher health employee health risks
Increased liability

Competitive Comparison Highlights

- **Lighter than most combination systems on the markets (365 pounds // 165 kg)**
 - Lighter than Sakura Tissue-Tek Prisma Plus - Sakura Tissue-Tek Prisma Plus weighs 572 pounds
 - Lighter than Leica HistoCore SPECTRA H&E Workstation - Leica HistoCore SPECTRA H&E Workstation weighs 727 pounds
- **Lower Price**
 - Lower than Sakura Tissue-Tek Prisma Plus
 - Lower than Leica HistoCore SPECTRA H&E Workstation
- **Better throughput**
 - Leica ST5010 and ST5020 have a lower throughput as different protocols are in progress.
 - Due to Gemini's ability to always analyse and prioritise the fastest staining process
 - Leica CV5030 has more bottlenecking as more slide baskets are added.
 - Due to having only two output racks compared to ClearVue's 5 output racks
- **Smaller Footprint**
 - Smaller than the Sakura Tissue-Tek Prisma Plus
 - Smaller than the Leica HistoCore SPECTRA H&E Workstation

Important - Target Customers/ Laboratories

- Smaller laboratories using CTM6
- Ideal: just recent purchases of Gemini and/or ClearVue
- Mid-throughput laboratories
- Customers purchasing home-made stains
 - 67765540 – aq. Eosin
 - 67765040 – alc. Eosin
 - 90017 – Eosin Y
 - 90022 – Haematoxylin
- Installed base of old Gemini and ClearVue
- Customers using Leica Autostainer XL (we can beat 5010 and 5020 on throughput)
- Customers using standalone competitor units such as CV5030 coverslipper
- Small labs where space is at a premium

We cannot compete with specs on speed with Sakura Film/ new Leica/ Dako/ Ventana units. This should not be our target market. We need to focus on where we have a viable market. **But – does the customer really need those high throughput instruments?**

Important - Customer Questioning

- It is important to quantify exactly what the customer is looking for
- What are their key requirements/ considerations?
 - Speed?
 - Budget?
 - Space/ size?
- How many slides do they stain/ coverslip per hour/ day?
- Are they using multiple protocols/ stains?
- If so, which ones?
- Is exposure to fumes a consideration?
- Do they need additional heaters?

Is the SBTS a viable option for them?



Cheltenham General Hospital

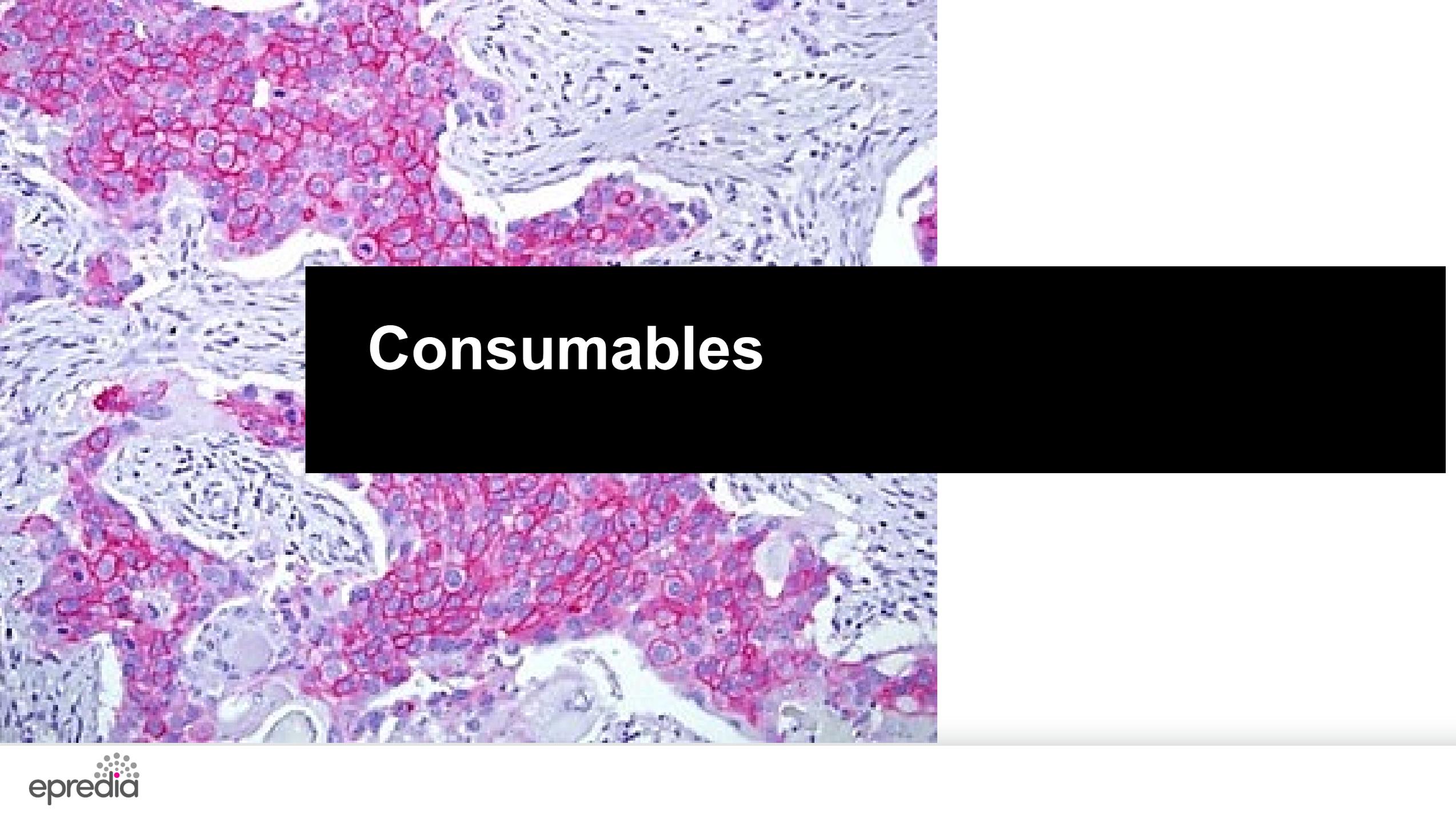
- Since 2004, Cheltenham General Hospital has been a part of one of the largest NHS Foundation Trusts in the UK
- In 2015, their case load was close to 143,000 Hematoxylin & Eosin (H&E) stains being carried out in the laboratory

Quick Facts

- Previous stainer required 450 ml in each station. This equates to over 25% reagent savings by using the smaller 320 ml pots in the Gemini AS slide stainer.
- Under pressure to meet targets for sample turnaround time. Gemini AS slide stainer has helped them achieved 100% throughput time of biopsies.
- After installing the Gemini AS slide stainer and ClearVue coverslipper the staff reports there is far less queuing, waiting, and delay.

Quotes

- “After the first few weeks, however, it became obvious that we could just put everything on the Gemini”
- “We drop in urgent racks several times a day where results are needed quickly. Before, there would be another day’s delay queuing for the staining machine. Families and lives are on the end of it, we certainly couldn’t have achieved that before having the Gemini”
- “Other manufacturers state that the staining process takes a certain amount of time, but because of the limited number of ovens or reagent stations, the more racks you put on the slower it gets. With the Gemini you can have twelve racks on the go and you know every single rack is going to take the same amount of time”

A histological slide showing a cross-section of tissue. The tissue is stained with hematoxylin and eosin (H&E), showing a mix of pink and purple colors. The structure appears to be a complex network of fibers and cells, possibly representing a type of connective tissue or a specific organ. A large black rectangular box is overlaid on the center of the image, containing the word "Consumables" in white, bold, sans-serif font.

Consumables

Primary Staining - Haematoxylin

GILL HAEMATOXYLIN – rapid, progressive stains

- Gill 2 - moderately intense stain; most commonly used in histology
- Gill 3 - intense stain exclusively used in histology

HARRIS HAEMATOXYLIN – regressive stains

- Acidified or non-acidified
- Low cost dry powder option – 6765015 makes 6 litres



7211 HAEMATOXYLIN

- A hybrid between Gill and Harris – optimum staining results
- It will produce crisp nucleic detail
- Often regarded as the best in the market
- One stainer pot will stain more than 1,500 slides without fading



Histology and Cytology Stains

Histology

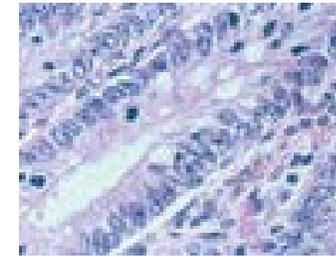
REF	Description
7211L	EpreDia Haematoxylin 7211, 5 L
7111	EpreDia Eosin Y, 4 x 473 mL
6765015	EpreDia Instant Haematoxylin, 6 packs, makes 6 L
9990700	EpreDia™ Kwik-Diff™ stain kit, 500 mL
88017	EpreDia Schiff Reagent, 500 mL
7401	EpreDia™ Clarifier™, 3.8 L

Cytology

REF	Description
6765002	EpreDia Harris Hematoxylin, non-acidified, 4 L
6765004	EpreDia Harris Haematoxylin, acidified, 4 L
7301	EpreDia Bluing Reagent, 3.8 L
6766006	EpreDia OG-6 counterstain, 4 L
6766002	EpreDia EA-50 counterstain, 4 L
6766004	EpreDia EA-65 Series S stain, 4 L

Counterstains

- Nu-Clear – removes excess haematoxylin
- Bluing Reagent- pH-controlled solution for bluing hematoxylin
- Eosin-Y - stains the cytoplasm of muscle/red blood cells/connective tissue three distinct colour hues of pink to red



- **Cytology counterstains - Orange G-6 and EA-50 / EA-65**
 - For use with routine H&E or Papanicolaou techniques
 - Produce crisp, brilliant staining to differentiate cellular components

Hematoxylin 7211 and 7212 Staining Grid

		Hematoxylin 7211 & 7212			
Eosin-Y		H 1.5 minutes E 0.5 minutes	H 2.5 minutes E 0.5 minutes	H 3.5 minutes E 0.5 minutes	↑ INCREASED CONTRAST
		H 1.5 minutes E 1.0 minutes	H 2.5 minutes E 1.0 minutes	H 3.5 minutes E 1.0 minutes	
		H 1.5 minutes E 1.5 minutes	H 2.5 minutes E 1.5 minutes	H 3.5 minutes E 1.5 minutes	
		→ INCREASED INTENSITY			
		H = Hematoxylin 7211 & 7212		E = Eosin-Y	

Epredia stains and mounting medium

Hematoxylin

- Hematoxylin 7211 
- Hematoxylin 7212 
- Hematoxylin 1 
- Hematoxylin 2 
- Hematoxylin Gill 1
- Hematoxylin Gill 2
- Hematoxylin Gill 3
- Hematoxylin Harris
- Hematoxylin Mayer's
- Harris Hema, Non-Acidified
- Harris Hema, Acidified
- Haemalum
- Haematoxylin



Eosin-Y

- Eosin-Y Alcoholic 
- Eosin-Y Saturated 
- Eosin-Y Phloxine 

Richard-Allan Signature Series

25-year history and a solid reputation as the most trusted brand of stains and reagents, the Richard-Allan Signature Series line provides unparalleled visual and diagnostic confidence for every slide you stain. You can rely on crisp, well-defined stains for a clearer diagnosis.

Signature Series is a portfolio of products with unique formulations that work together to increase performance and improve results.

Look for the gold seal!



Clarifier 1&2

- Clarifier 1 
- Clarifier 2 

Bluing Reagent

Cytology Stains

- Cyto-Stain 
- Cyto-Stain G 

Mounting Medium

- Xylene 
- Toluene 



Histology and Cytology Stains

Histology

REF	Description
7211L	Epredia Haematoxylin 7211, 5 L
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88017	Epredia Schiff Reagent, 500 mL
7401	Epredia™ Clarifier™ 1, 3.8 L

Cytology

REF	Description
6765002	Epredia Harris Hematoxylin, non-acidified, 4 L
6765004	Epredia Harris Haematoxylin, acidified, 4 L
7301	Epredia Bluing Reagent, 3.8 L
6766006	Epredia OG-6 counterstain, 4 L
6766002	Epredia EA-50 counterstain, 4 L
6766004	Epredia EA-65 Series S stain, 4 L

Signature Series Hematoxylin

- Proprietary packaging oxidation before use extends shelf life
- Rapid, intense staining makes diagnoses easier
- Cost per result is over 50% lower than other stains (2500 to 3000 slides per pint)

Signature Series Eosin-Y

- Alcoholic, acidified formulation
- Three shades of pink to red for higher definition
- Differentiates muscle, RBC's and connective tissue

Signature Series Clarifier 1&2 (Diffentiator)

- Eliminates background staining and increases cell transparency
- Does not affect nuclear staining
- Improves nuclei-cytoplasm contrast

Signature Series Bluing Agent (Scott's Tap Water Substitute)

- Enhances the nuclei colour to blue-purple for improved contrast
- Ensures proper alkalinity and crisp nuclear detail
- Requires only a one-minute wash
- Increases section adhesion
- Alkaline based solution

Signature Series Cytology Stains

- Alcoholic, acidified formulation



Mountant

- **ClearVue Mountant**

- Superior mountant, designed to be compatible with ClearVue coverslipper
- Toluene or xylene based
- 2x473ml; Toluene 4211; Xylene 4212

- **Consul-Mount™**

- Permanent, xylene based organic mountant
- Histology (9990441) & Cytology (9990440) formulations
- Very good for hand-coverslipping
- Medium/ high viscosity

- **Immu-Mount™**

- Aqueous base for immunostaining and frozen techniques.
- Non-fluorescing medium with a low viscosity
- Resists fading and polymerises quickly
- 1 litre (9990414); 6x20ml (9990412); 1x20ml (9990402)



Thank you! Any questions?

