SEPTEMBER 2025 ISSUE #3

THE CUTTING EDGE

THE OFFICIAL NEWSLETTER FOR
THE TEXAS SOCIETY FOR HISTOTECHNOLOGY

Special Issue NSH 2025

Packing for Progress:
What to Expect at NSH 2025

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It's that time of year again when histology professionals across America meet up for four days, dedicated entirely to the latest (and greatest) in histology! The National Society for Histotechnology Convention, being held this year in Long Beach, California, showcases the newest technologies impacting our field, such as spatial biology & AI, ASCP exam prep courses, tips, tricks, troubleshooting, and much more. It's a great opportunity to network, get advice on a tricky assay or stain, and explore the vendor exhibit hall. Vendors will showcase new equipment and offer hands-on troubleshooting and technical demonstrations. It's a convention you don't want to miss!

To check out the Session Schedule with all presentations:
https://www.histoconvention.org/edusessions.cfm

To check out the Learning Lab schedule:
https://www.histoconvention.org/learnlabs.cfm

Learning Labs fill up fast, so be sure to sign up quickly. Prices are in addition to the registration fee and range from $45 to $75 each.

Continued on Next Page

What to Expect at NSH 2025 (Cont.)

Start each day off at 8:00 with breakfast at the convention center and mingle until the keynote. There will be three keynotes this year, one each morning, each worth 1 CEU.

SATURDAY
Keynote by Jinwoon Park introduces the Spatial Atlas of Human Anatomy (SAHA), highlighting new insights from combining spatial transcriptomics and proteomics.

SAFETY SUNDAY
Dan Scungio will share his journey from lab generalist to safety advocate, highlighting key experiences from his 30+ year career. He'll discuss hard-learned lessons and show how prioritizing safety can enhance both scientific success and personal growth.

MONDAY
Finishing off the keynote series, Nicholas Hoo-Fatt explores how advances in AI and machine learning are revolutionizing molecular diagnostics from patient tissue. It covers their impact on disease detection, prognosis, and personalized treatment, highlighting the power of tech-driven precision medicine and the importance of interdisciplinary collaboration.

TUESDAY
Tuesday will be a roundtable style where everyone can take time to reflect on key insights, connect with peers and exhibitors, and explore the latest industry trends and technologies one last time.

Having attended three past NSH Conventions, I've picked up a few helpful tips and suggestions to help you make the most of your experience. Whether you're a first-time attendee or a returning participant, here are some things to keep in mind:

1. **First-Timer's Reception (Friday)** – If this is your first convention, be sure to attend the First-Timer's Reception. It's a great way to meet other newcomers and be entered into prize drawings.
2. **Lecture Materials** – Presentation slides are available in advance and can be downloaded for free. If you're a note-taker, consider saving the slides digitally and bringing a notebook for travel-friendly, streamlined note-taking.
3. **Bring a Reusable Water Bottle and Coffee Tumble**r – Staying hydrated (and caffeinated) is key, especially during long sessions. A reusable bottle or mug is both practical and eco-friendly.
4. **Dress in Layers** – Convention center meeting rooms can vary in temperature, so a jacket or sweater is highly recommended.
5. **Tote Bag** – While a tote bag is typically provided at registration, bringing your own reliable bag can help carry materials throughout the day.
6. **Download the NSH Convention App** – The app is a convenient way to stay up-to-date with your schedule, sessions, and essential updates. Be sure also to keep your registration confirmation email handy, as it includes your login credentials.
7. **Get Involved** – Don't hesitate to step outside your comfort zone—volunteer at the registration desk to earn 1 CEU and connect with fellow attendees. Join a Round Table Talk (also worth 1 CEU) to gain new perspectives. Attend vendor-sponsored events to network and stay current with industry innovations. Engage, connect, and maximize every opportunity!

The convention is not only educational but also a fantastic way to build lasting professional relationships. Enjoy the experience!

https://www.texashistology.com

SEPTEMBER 2025 ISSUE #3

TEXAS SOCIETY FOR HISTOTECHNOLOGY FOUNDED 1976

NSH HISTOTECHNOLOGY CONVENTION

SURVIVAL GUIDE

Surviving the biggest event of the year can be a challenge! Here's our quick guide!

What to Pack

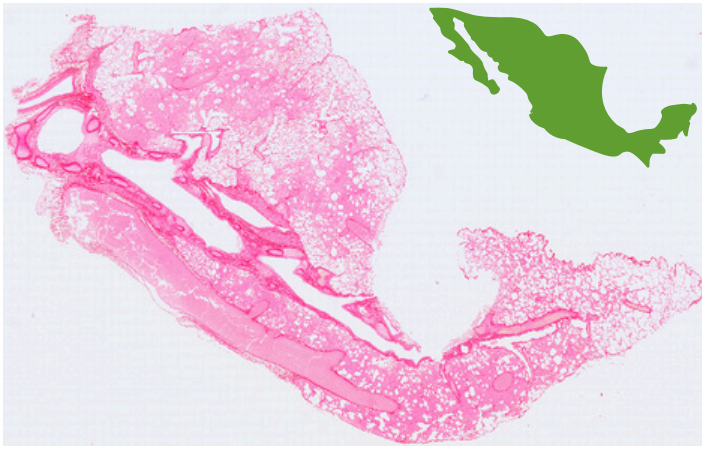
Comfy Shoes Your feet will thank you after those exhibit hall laps.	**Business Cards** Networking essential—don't run out!
Backup Flash Drive Always have your poster/presentation handy.	**Mints** Fresh breath = fresh connections.

Hydration
"Bring a refillable water bottle."

Networking Hacks
"Introduce yourself, follow up, connect on LinkedIn."

Session Planning
"Highlight your daily must-sees."

Celebrating Latin American Heritage Month:



Primate Lung stained with Sirius Red/Fast Green Staining by Antoinette EF Lona MSc., HTL(ASCP)^{cm}

September 15 marks the beginning of Latin American Heritage Month, a time to celebrate the vibrant cultures, rich histories, and numerous accomplishments of Latin American communities worldwide.

In the world of medical science, Latin Americans have carved out meaningful roles. In fact, 17% of histotechnologists identify as Hispanic or Latinx.[1] This is a powerful reminder of the vital contributions Latin Americans make within fields that save lives.

References on last page

Cancer Research in Crisis: NIH Grants Grow Scarcer

Antoinette EF Lona MSc., HTL(ASCP)cm

In a development that rattles the biomedical research community, the National Cancer Institute (NCI), a cornerstone of the National Institutes of Health (NIH), has announced a significant decrease in its funding rate for competing R01 grants. Scientists were informed that only 4% of submitted grant applications will be funded for the remaining two months of the fiscal year, down from approximately 9% last year, marking what is possibly the most extreme decline in recent memory.[1,2]

Why Funding Is Shrinking

This contraction stems from a broader NIH policy shift aimed at allocating at least half of its remaining competing research project grant dollars as upfront payments for multi-year grants. While intended to ease budget pressures in fiscal year 2026, the strategy drastically reduces the total number of unique projects that can be funded in 2025.[3]

Ripple Effects Across the Research Landscape

- The odds of securing NIH support have plummeted, prompting warning signs across academic and medical institutions.[4,5]
- In June, a STAT analysis highlighted a growing funding deficit, from $2.3 billion in April to at least $4.7 billion by mid-June, shadowing a 29% drop in monthly funding levels compared to the average over the past nine years.[5]
- Political and budgetary turbulence continues to swirl, with proposed FY2026 budgets slashing the NCI's funding by over 37%, a potential blow to priorities such as the Cancer Moonshot Initiative, which aims to reduce the cancer death rate by at least 50% within 25 years. [6,7]

A Crisis Fueled by Policy, Not Science

This dramatic shift isn't simply the result of budget tightening; it reflects broader political priorities. Since early 2025, sweeping directives from the Trump administration have targeted NIH's autonomy, including:

- An indirect cost cap of 15% on grants, triggering lawsuits from 22 states and institutions like Baylor and MD Anderson in Texas.[8,9]
- A brief and chaotic freeze on federal grant disbursements in January, which caused widespread disruption before being blocked in court.[10]
- Legal, policy, and structural assaults on NIH's stability from grant terminations to staff layoffs have intensified the sense of crisis.[11]

Voices from the Frontlines

Researchers and institutions are sounding the alarm:

- At the AACR Annual Meeting 2025, cancer leaders, including Monica Bertagnolli, warned that slashing NIH funding threatens the very foundation of groundbreaking science. The AACR responded with its own $15 million Trailblazer grants to support early- and mid-career researchers.[12]
- Assigned NIH staff rallied in protest through the Bethesda Declaration, denouncing the politicized dismantling of grant distribution and demanding the restoration of "life-saving science."[13]
- Scientists, caught in the crossfire, describe the environment as "a battlefield" fraught with anxiety and uncertainty, where labs could go dark, careers may be lost, and long-term research trajectories may be disrupted.[14]

What's at Stake and What Comes Next?

- Cancer research is at risk: With survival rates and treatments hinging on continuous innovation, delays or shutdowns could reverse decades of progress and lead to numerous deaths.[12]
- Federal funding stability is fracturing: Researchers face unnecessary stress and difficulty securing future support for basic and translational work.[4]
- Advocacy and legal pressure are intensifying: universities, scientific societies, and state governments are mobilizing to resist these cuts and restore the NIH's core mission.[8]

TLDR

As of late July 2025, only 4% of NCI R01 grant applications are being funded, a sharp drop from 9% in 2024, and a distressing sign of a more profound funding crisis. With political winds reshaping NIH's structure and funding priorities, researchers are scrambling to keep labs operational and science alive, not merely to win grants, but to sustain cures.

We are watching a defining moment, one where political policy and budget strategy risk imperiling the future of medical discovery. Stay tuned as the fight for research autonomy and cancer advances continues.

References on last page

SEPTEMBER 2025 ISSUE #3

STAIN OF THE MONTH

The Enduring Power of the Feulgen Reaction

The Feulgen stain specifically detects DNA using a classic reaction involving the Schiff reagent, a dye that reacts with aldehyde groups. It's a stoichiometric stain, meaning its intensity directly reflects the amount of DNA present, making it ideal for cytometry or cell cycle studies.

Methods[2]

1. **Hydrolysis** of DNA with **1N HCl** at 60°C exposes aldehyde groups.
2. These aldehydes react with **Schiff reagent**, forming a **magenta** color.

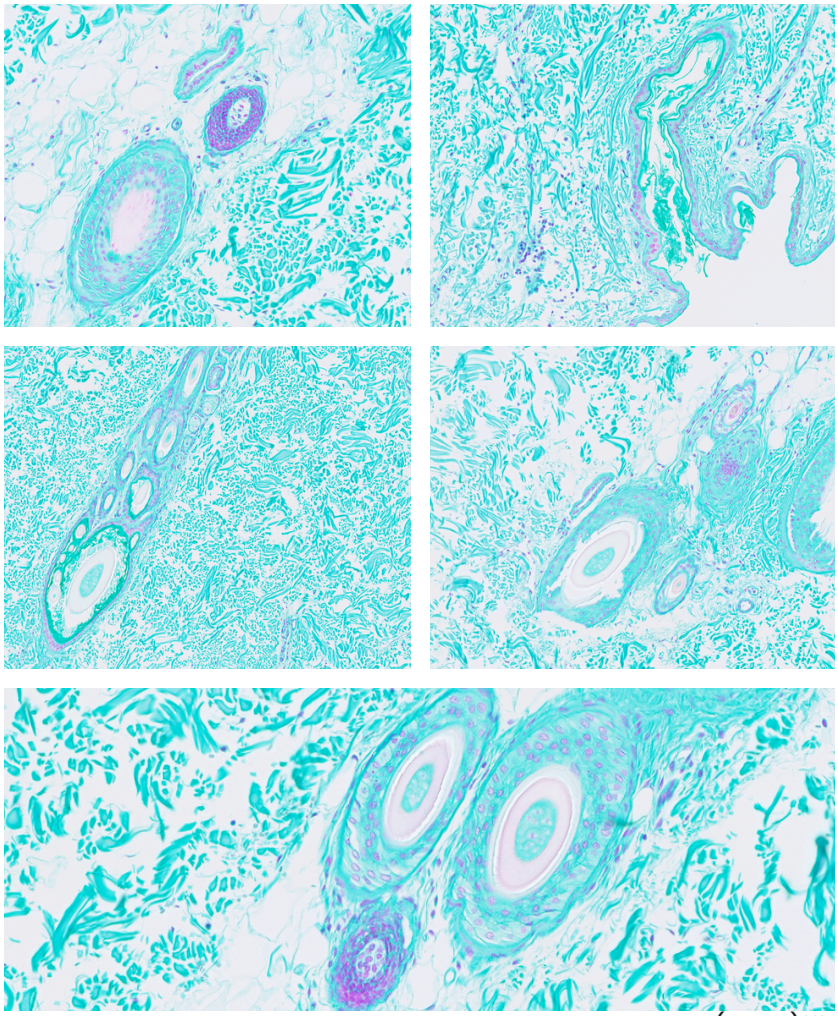
Note: Note: RNA is not stained; this method is specifically designed for DNA.

Results

Nuclei: intense reddish-purple/magenta
Cytoplasm/background: clear or lightly counterstained (e.g., with Light Green)

Tips

- Hydrolysis is fixative dependent! For 10%NBF, 8 mins in 60°C 1N HCl.
- Timing is everything: Under- or over-hydrolysis ruins specificity.
- Use fresh Schiff reagent as it degrades over time.



Canine Skin Staining by Antoinette EF Lona MSc., HTL(ASCP)^{cm}

Fun Fact:

The Feulgen stain dates back to 1924, named after German chemist Robert Feulgen, a pioneer in histochemistry.[1]

SEPTEMBER 2025 ISSUE #3

Tip of the Month

Travel-Proofing Your Lab

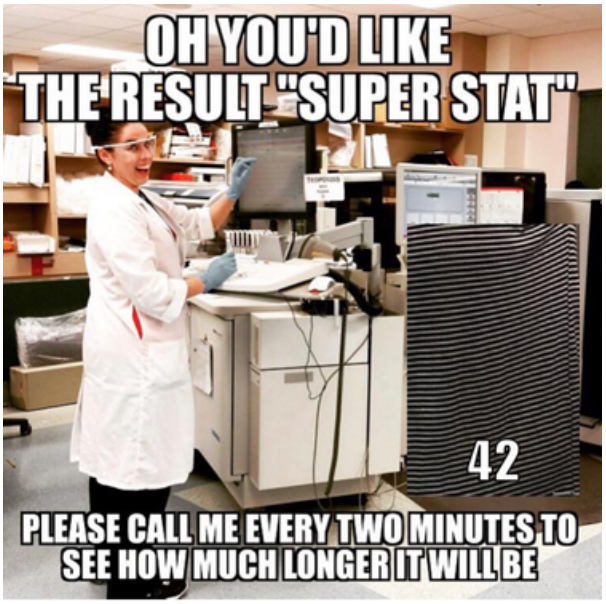
Conference season brings plenty of excitement, but stepping away from your lab can feel daunting. With a bit of preparation, you can keep everything running smoothly while you're gone:

- **Standardize protocols** – Ensure that all routine procedures are clearly written, easily accessible, and up-to-date, so your colleagues aren't left guessing.
- **Delegate wisely** – Assign a main contact for essential tasks. Even if someone isn't an expert, a quick walkthrough before you leave can help avoid mistakes.
- **Label everything** – Whether it's reagents or equipment, clear labels save time and reduce confusion for anyone stepping in.
- **Build in redundancy** – If possible, train more than one person on the critical steps so no one feels overwhelmed or stuck.
- **Communicate expectations** – Leave a contact list, set clear priorities, and note what tasks can wait until you're back.

Travel-proofing isn't just for your peace of mind; it helps your lab run more independently, meaning you'll return to a smoothly running lab, not a mess.

Histo-lol-gy

We all need a laugh sometimes...



Memes from:
triagestaff.com/blog

SEPTEMBER 2025 ISSUE #3

CALL FOR SUBMISSIONS!

Are you a passionate histotech with a cool case, clever tip, or compelling story to share? The Texas Society for Histotechnology (TSH) Newsletter wants to hear from YOU!

We're currently accepting submissions for upcoming issues and would love to feature your voice. Whether it's a how-to article on a staining technique, a fun lab anecdote, a photo of your latest beautiful slide, or a comic that only fellow histotechs will understand? There's a place for it in our pages.

You don't need to be a professional writer to contribute. We welcome pieces of all lengths and tones, from technical to humorous, and we're happy to help polish your draft if needed. Student voices and first-time contributors are especially encouraged to submit!
This is YOUR newsletter, let's make it a vibrant, collaborative space that reflects the creativity, expertise, and heart of our Texas histology community.

Submit your ideas, photos, or full articles to anlona@utmb.edu. Deadline for the next issue is September 25th.

Got something in your microtome drawer worth sharing? Don't keep it to yourself, submit it today!

JOIN TSH!

Click the link below to become a member of TSH and connect with a vibrant community of histology professionals across Texas. Whether you're a student, tech, pathologist, or vendor, there's a place for you in TSH! Gain access to exclusive resources, educational events, networking opportunities, and more. We'd' be glad to have ya! 🤠

👉 Join TSH here!

https://www.texashistology.com

The Texas Society of Histotechnology would like to thank our sponsors!

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Celebrating Latin American Heritage Month: Honoring Culture, Talent, and Science

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