

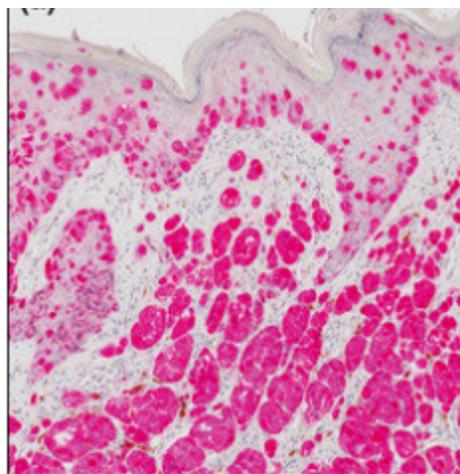


inside....**Part 1** - Conclusion of IHC stain series, **Part 2** - DIF STUDIES

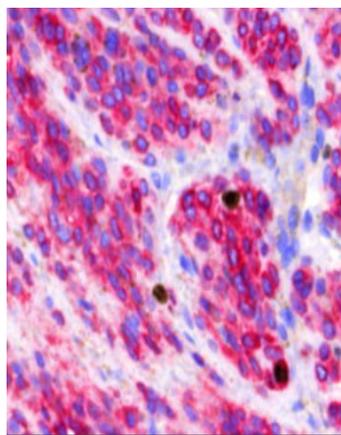
PART 1

In our October issue, we talked about how CPC's HMB-45 immunostain is used to aid pathologists in diagnosing or ruling out melanoma in submitted specimens. In this issue, we continue our series of insights into the workup of suspected melanoma specimens by discussing the next stains that may be ordered by one of the pathologists, the **p16** and then possibly **Ki-67/Melan-A** immunostains.

p16 is a tumor suppressor protein involved in cell cycle regulation. In benign nevi, p16 is typically expressed in a nuclear and cytoplasmic pattern. Loss of p16 expression is more commonly seen in melanoma and can suggest malignant transformation, although interpretation must be cautious and context-dependent.



p16



Ki-67/Melan A

The **Ki-67/Melan-A double immunostain** combines a proliferation marker (Ki-67) with a melanocytic lineage marker (Melan-A). Ki-67 is expressed in the nuclei of cells that are actively cycling, making it a reliable indicator of cellular proliferation. When used together, this dual stain allows us to specifically assess the proliferation index of melanocytic cells, rather than the surrounding non-melanocytic elements (such as inflammatory cells or keratinocytes). In benign nevi, the Ki-67 index is typically low and confined to the superficial dermis or epidermis. In contrast, melanomas often show an increased proliferation rate with deeper or diffuse Ki-67 positivity within Melan-A positive cells. This dual stain is especially helpful in

ambiguous or borderline cases, where precise localization of proliferative activity within the melanocytic component can aid in distinguishing benign from malignant lesions.

This concludes the series of 6 stains that can be used by our pathologists to help diagnose melanoma. Together, these stains form a complementary panel that aids in characterizing the spectrum of melanocytic lesions. No single marker is definitive on its own, but when used in combination with histopathologic features and clinical context, they significantly enhance diagnostic accuracy.

PART 2

DIF - Direct Immunofluorescence Studies - It's that time of the year.....

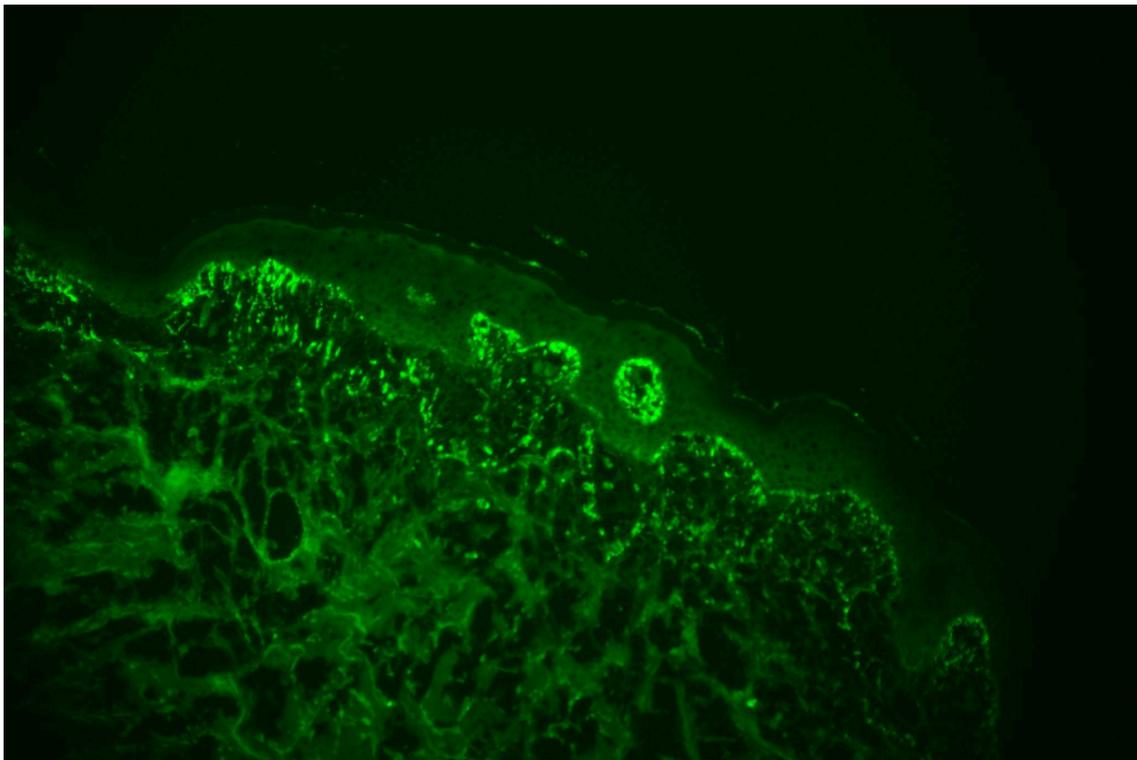
Both cold and hot weather, along with sunlight, can exacerbate autoimmune disease symptoms because autoimmune conditions can be sensitive to temperature fluctuations. Therefore, protecting your skin from extreme temperatures and sun is a key management strategy.

Bullous pemphigoid is a rare skin condition that causes large fluid-filled blisters. They often appear on the skin near creases, such as the upper thighs and armpits. Sometimes, people get a rash instead of blisters. The affected areas may be painful and are usually very itchy. Blisters or sores also might form in the mouth, but this is rare. Diagnosis and treatment can be made using a Direct Immunofluorescence study, with a biopsy submitted in Michel's Media and processed at CPC.

CPC has extensive experience both processing and reading DIF specimens, which require special handling, a cryostat for cutting frozen sections and a specialized fluorescence microscope to read the prepared slides.

Questions? Call and ask our experienced staff members, who can help you order obtain the correct supplies for preparing a specimen for DIF studies.

Positive DIF picture



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