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**Supplemental Table 1.** Categorization of diagnostic concordance between digital slide evaluation and the original glass slide diagnosis.

<b>Classification</b>	<b>Definition</b>
Concordant	No difference in diagnosis
Minor discordance	A clinically insignificant difference between diagnoses that would not affect patient management decisions.
Major discordance	A clinically significant difference between diagnoses that could lead to a difference in patient management.

**Supplemental Table 2.** Diagnostic concordance of digital slide evaluation compared to the original sign-out diagnosis. Pathologists performing digital slide evaluation were not given clinical information, and could not request additional material or consult other pathologists. For neuropathology frozen muscle evaluation, limited clinical information was provided.

Service	Category	Concordant	Discordant	Total	Concordance
Neuro	FFPE H&E	62	2	64	97%
	Frozen muscle	58	3	61	95%
	FFPE IHC*	25	0	25	100%
	Special Stains*	21	1	22	96%
GYN	FFPE H&E	20	0	20	100%
IHC	FFPE IHC	66	1	67	99%
	FFPE ISH*	5	0	5	100%
	Derm FFPE IHC*	24	0	24	100%

\*Slide level interpretation of immunohistochemical or special stains corresponding to FFPE cases included in the neuropathology or IHC validations.

Abbreviations: Neuro, Neuropathology; GYN, gynecologic pathology; IHC, immunohistochemistry; Derm, dermatopathology; H&E, hematoxylin and eosin; ISH, in-situ hybridization; IHC, immunohistochemistry