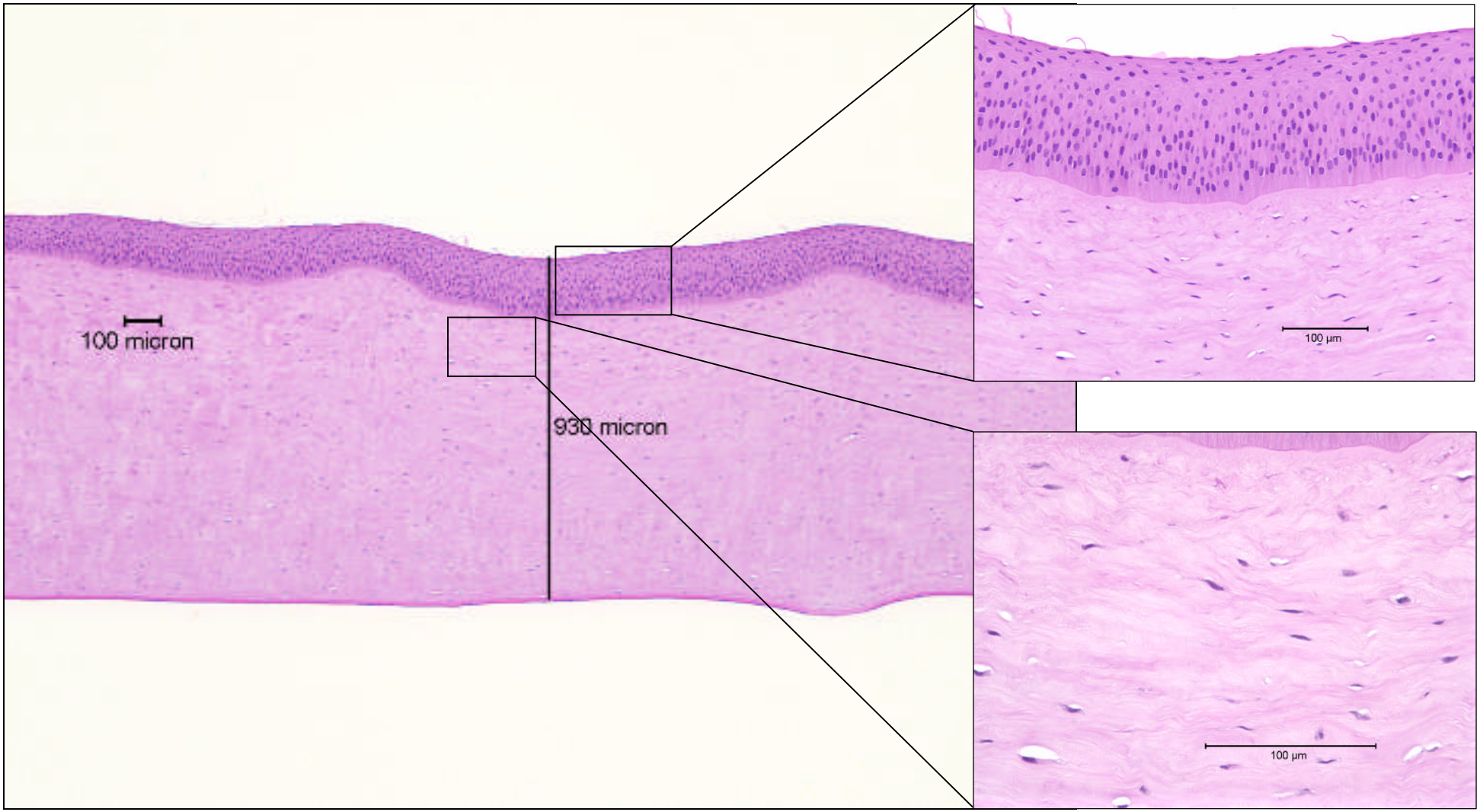
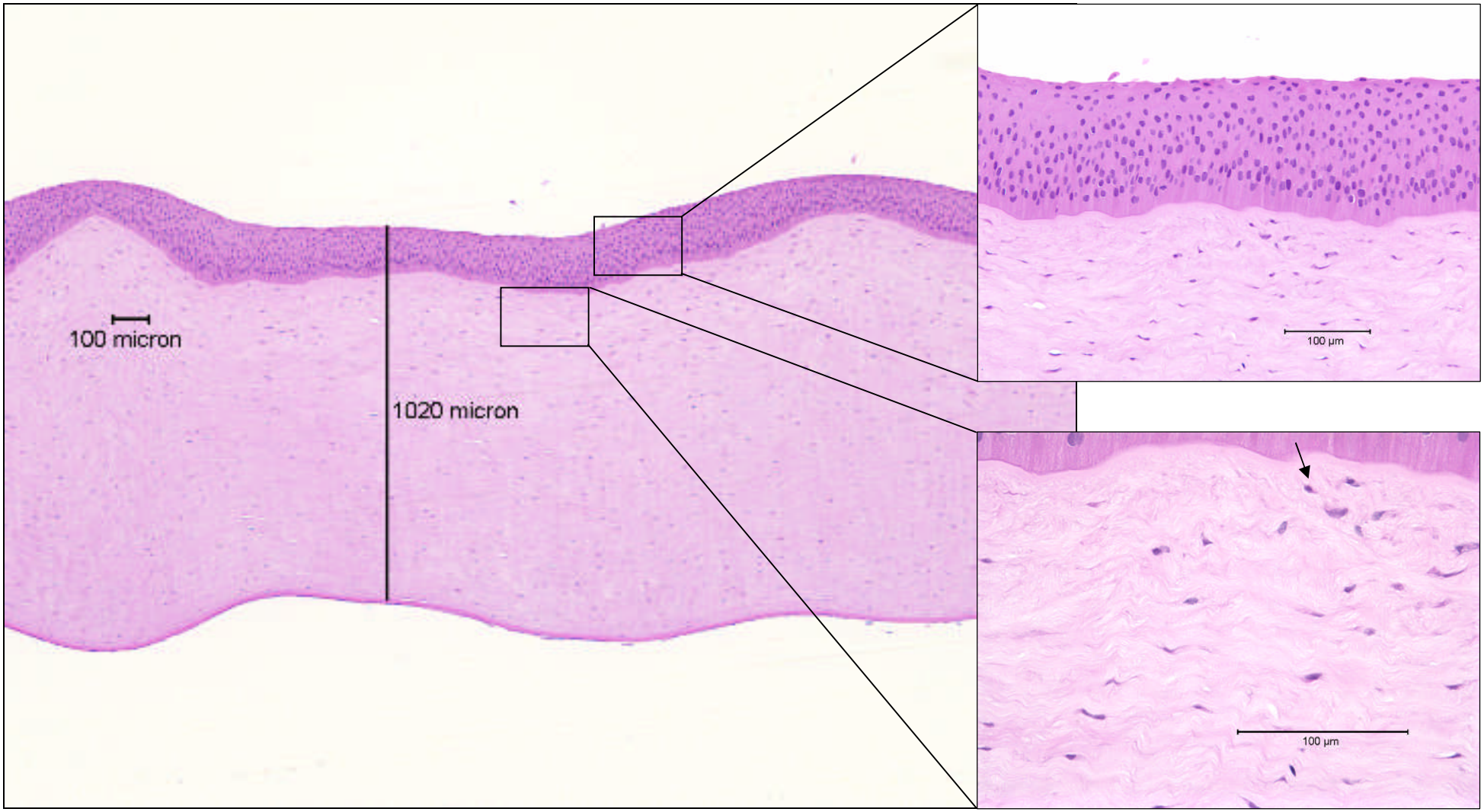
SURFACTANT MATERIALS

05AE39, neat, 3-minute exposure, 120-minute post-exposure (08/18/05) - Full thickness (magnification 48x). Upper right - Epithelium (magnification 237x). Lower right - Stroma directly below Bowman's Layer (magnification 475x).



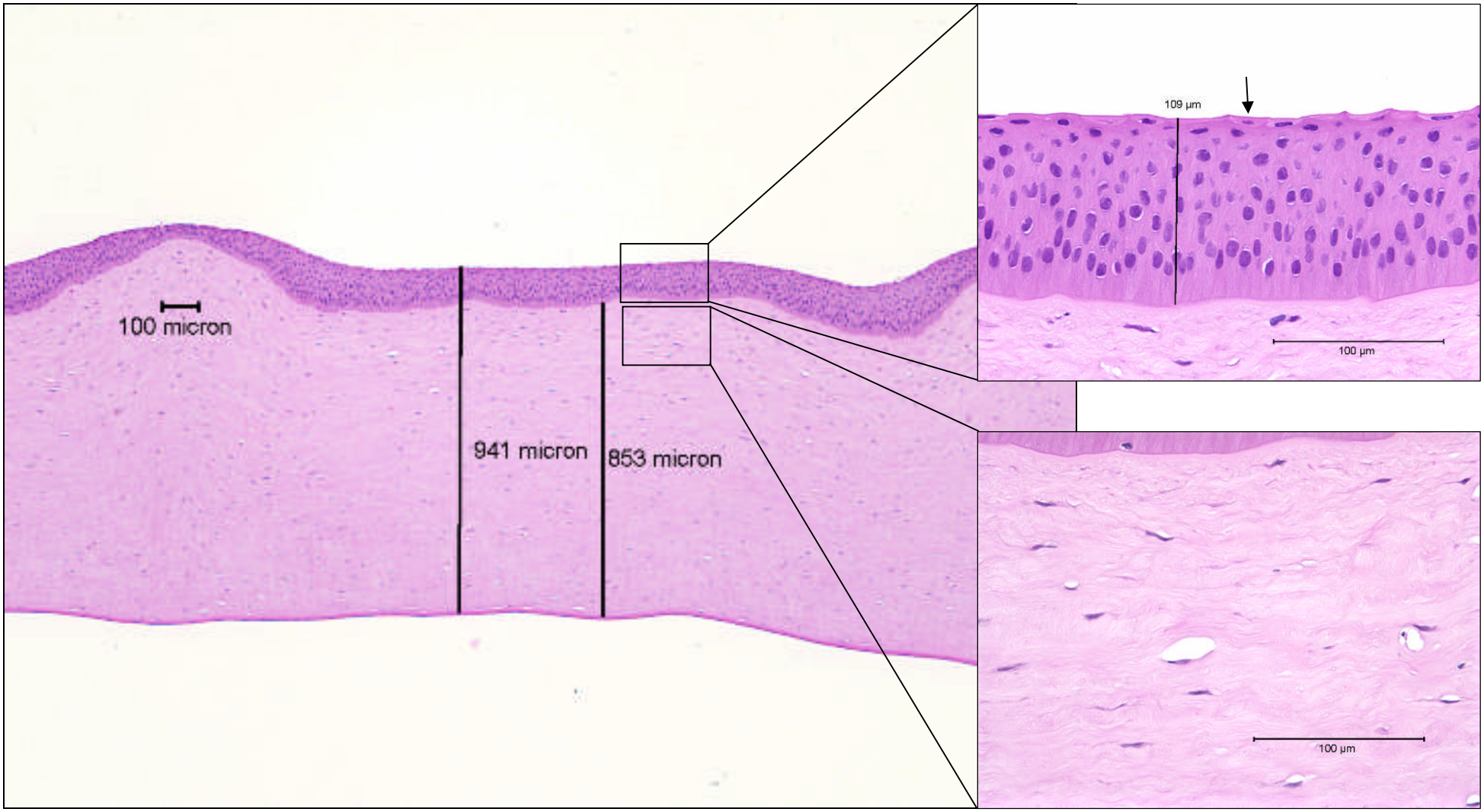
Opacity = -0.7	Permeability = 0.023	*In Vitro* Score = -0.3	pH = 11.5

05AE39, neat, 10-minute exposure, 120-minute post-exposure (08/18/05) - Full thickness (magnification 48x). Upper right – Epithelium showing loss of the surface squamous cells (magnification 237X). Lower right - Stroma directly below Bowman's Layer showing slight collagen matrix vacuolization and rare keratocytes with cytoplasmic eosinophilia (magnification 475x).



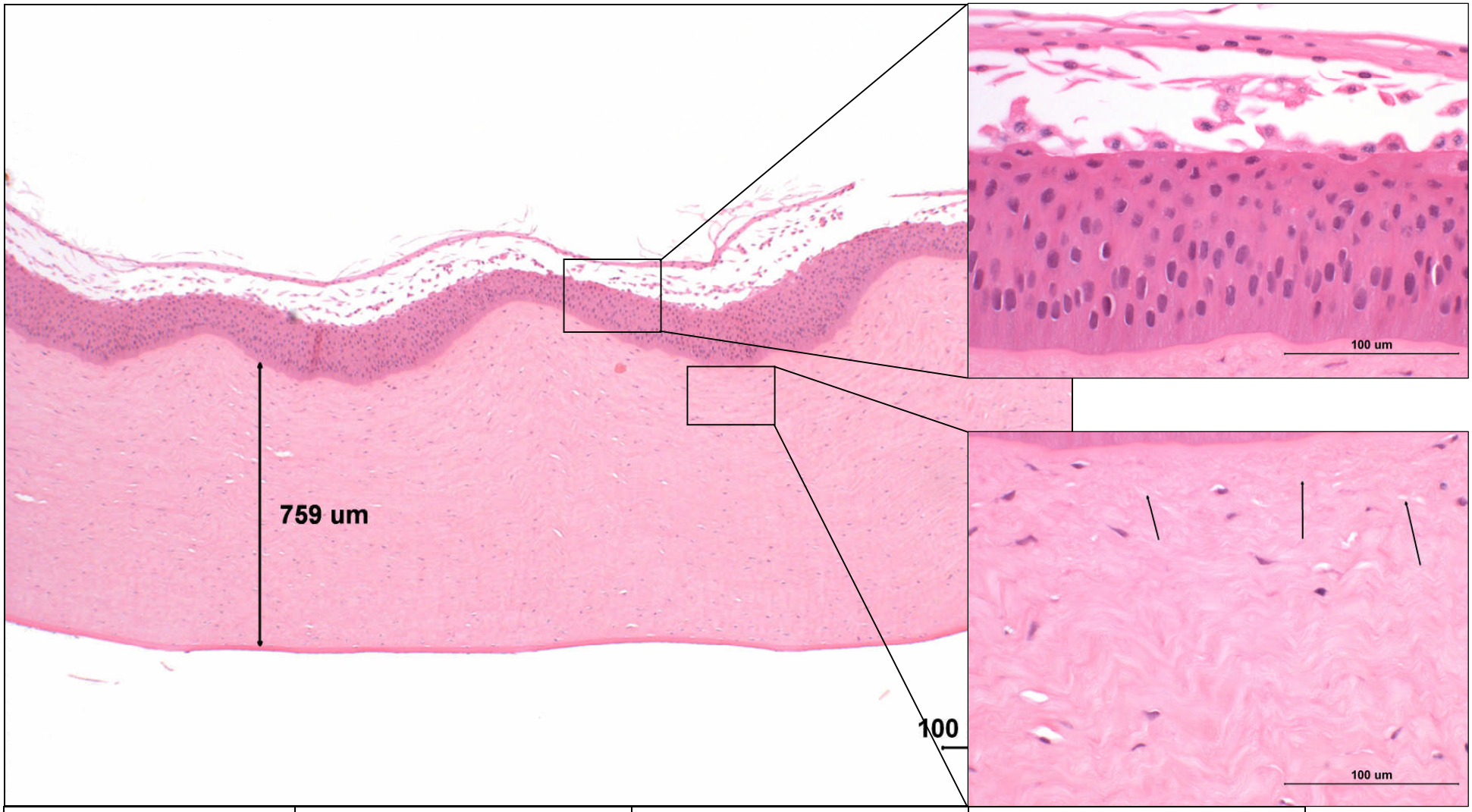
Opacity = -1	Permeability = 0.104	*In Vitro* Score = 0.6	pH = 11.5

05AE37, neat, 3-minute exposure, 120-minute post-exposure (08/18/05) - Full thickness (magnification 48x). Upper right - Epithelium showing the loss of the surface squamous epithelium (magnification 475x). Lower right - Stroma directly below Bowman's Layer (magnification 475x).



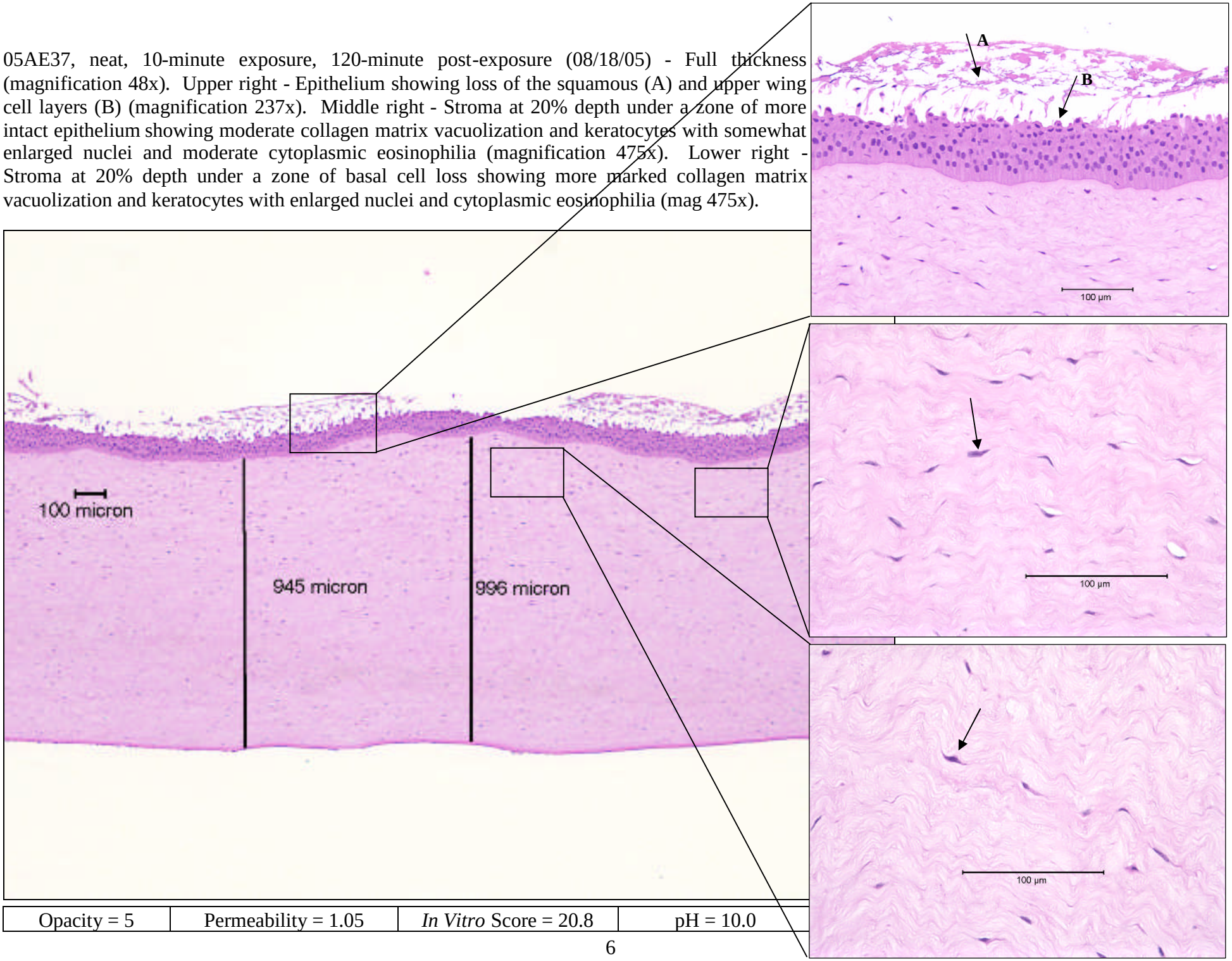
Opacity = 0.3	Permeability = 0.214	*In Vitro* Score = 3.5	pH = 10.0

06AH04, neat, 3-minute exposure, 120-minute post-exposure (10/17/06) – Full thickness (magnification 4X). Upper right – Epithelium with sloughing of the squamous layer (magnification 40X). Lower right – Upper stroma with expansion of the collagen matrix (magnification 40X).



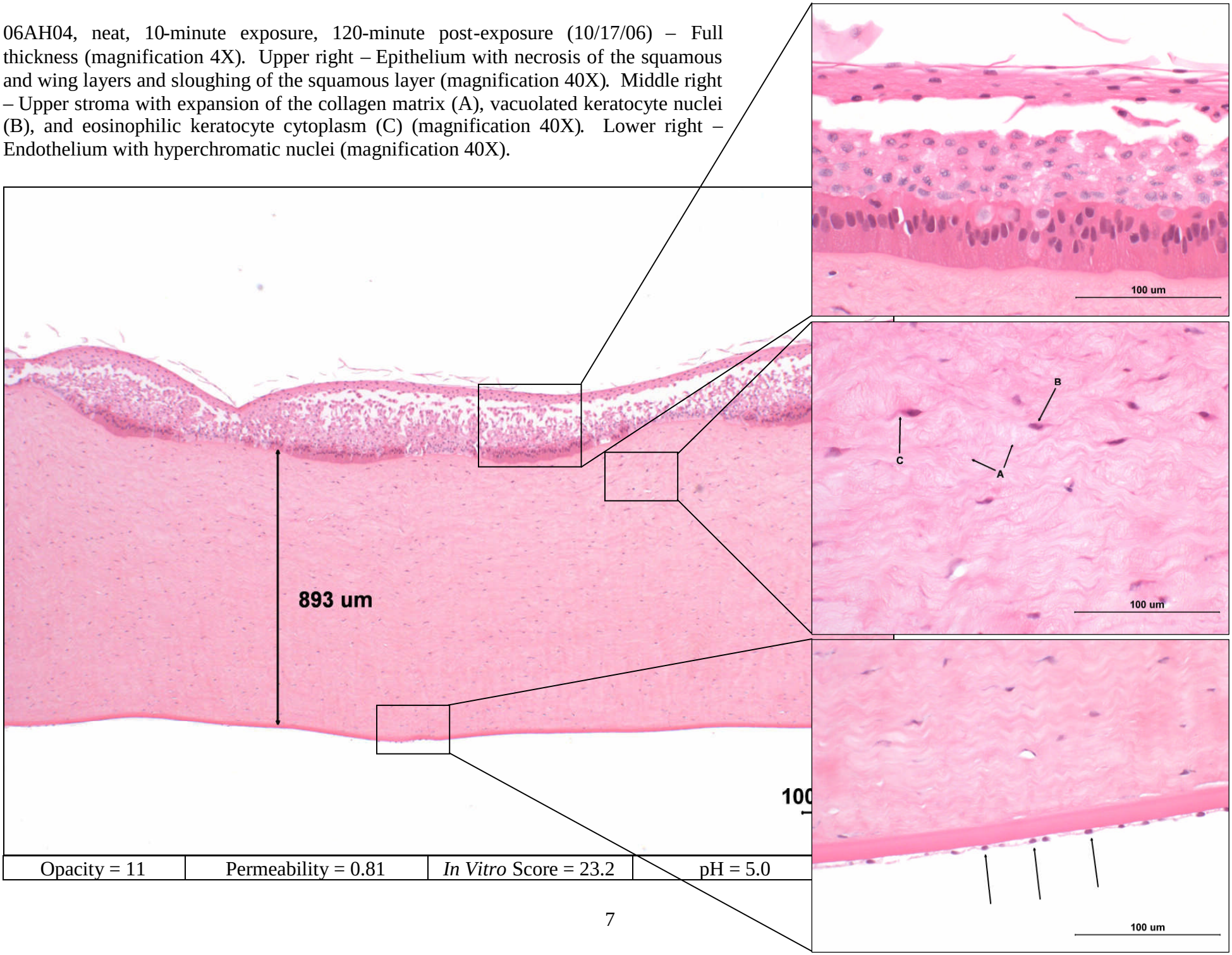
Opacity = 2.3	Permeability = 0.146	*In Vitro* Score = 4.5	pH = 5.0

05AE37, neat, 10-minute exposure, 120-minute post-exposure (08/18/05) - Full thickness (magnification 48x). Upper right - Epithelium showing loss of the squamous (A) and upper wing cell layers (B) (magnification 237x). Middle right - Stroma at 20% depth under a zone of more intact epithelium showing moderate collagen matrix vacuolization and keratocytes with somewhat enlarged nuclei and moderate cytoplasmic eosinophilia (magnification 475x). Lower right - Stroma at 20% depth under a zone of basal cell loss showing more marked collagen matrix vacuolization and keratocytes with enlarged nuclei and cytoplasmic eosinophilia (mag 475x).



Opacity = 5	Permeability = 1.05	*In Vitro* Score = 20.8	pH = 10.0

06AH04, neat, 10-minute exposure, 120-minute post-exposure (10/17/06) – Full thickness (magnification 4X). Upper right – Epithelium with necrosis of the squamous and wing layers and sloughing of the squamous layer (magnification 40X). Middle right – Upper stroma with expansion of the collagen matrix (A), vacuolated keratocyte nuclei (B), and eosinophilic keratocyte cytoplasm (C) (magnification 40X). Lower right – Endothelium with hyperchromatic nuclei (magnification 40X).

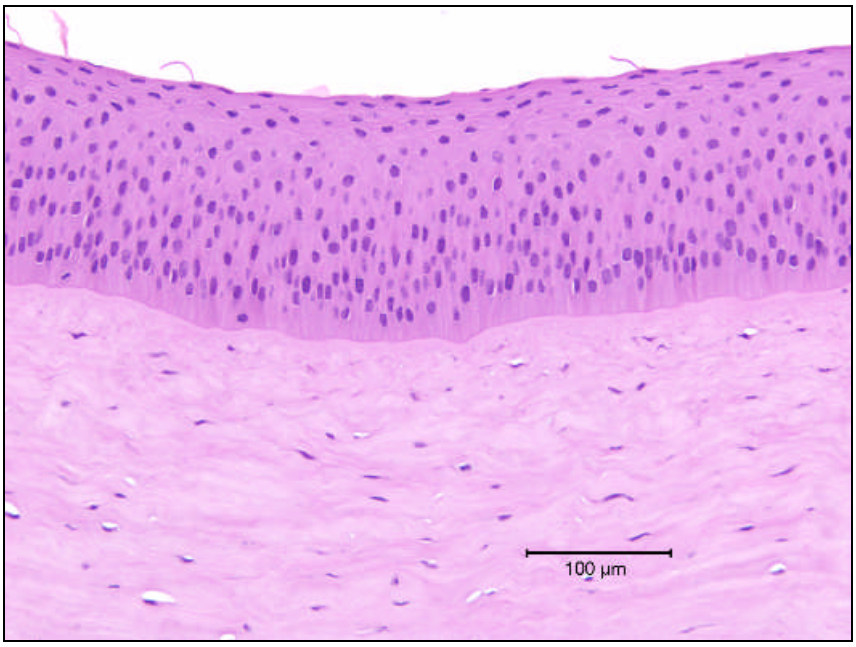


Opacity = 11	Permeability = 0.81	*In Vitro* Score = 23.2	pH = 5.0

Surfactant Materials

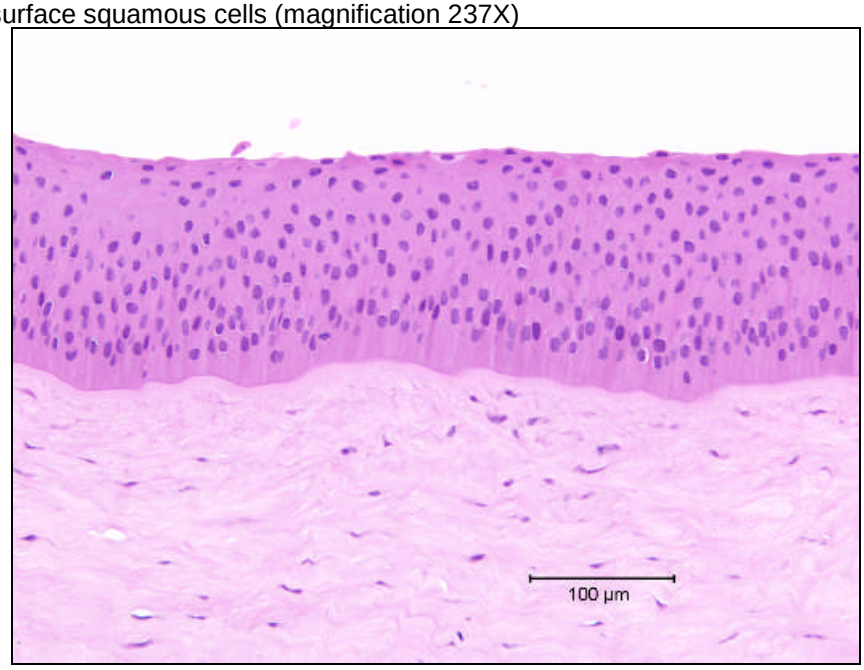
Epithelium

05AE39, neat, 3-minute exposure, 120-minute post-exposure (08/18/05) - Epithelium (magnification 237x)



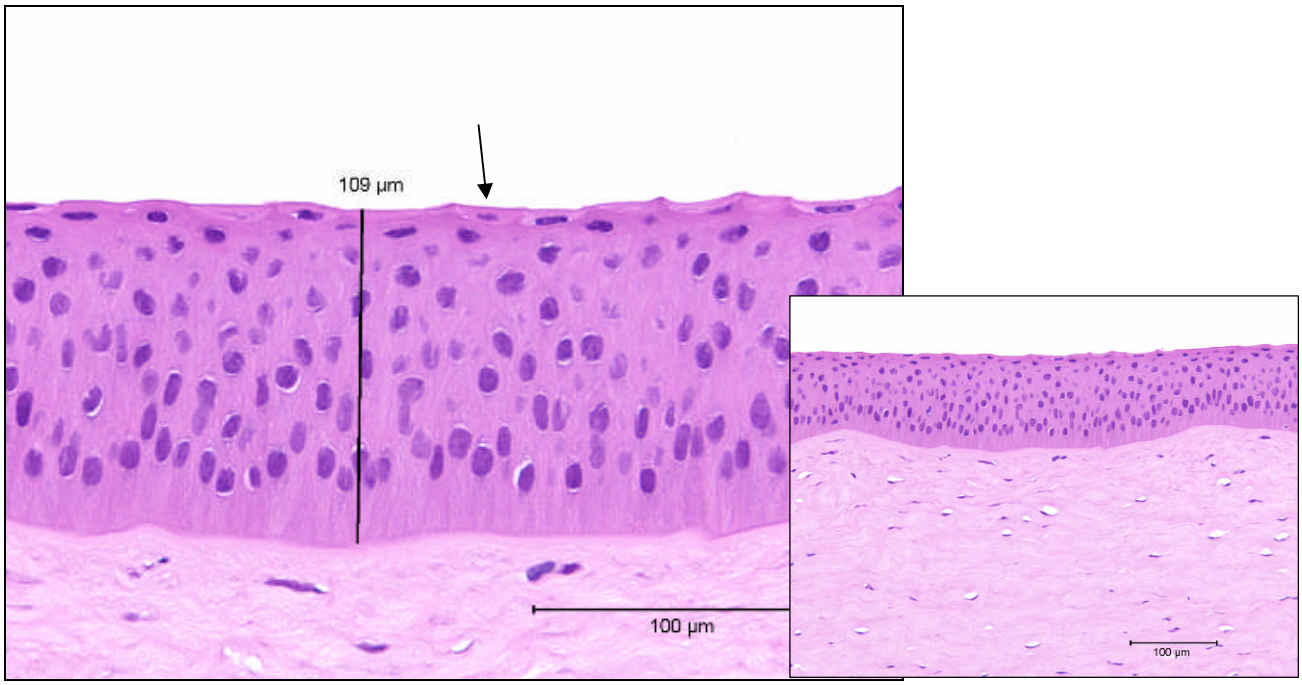
Opacity = -0.7	Permeability = 0.023	*In Vitro* Score = -0.3	pH = 11.5

05AE39, neat, 10-minute exposure, 120-minute post-exposure (08/18/05) – Epithelium showing loss of the surface squamous cells (magnification 237X)



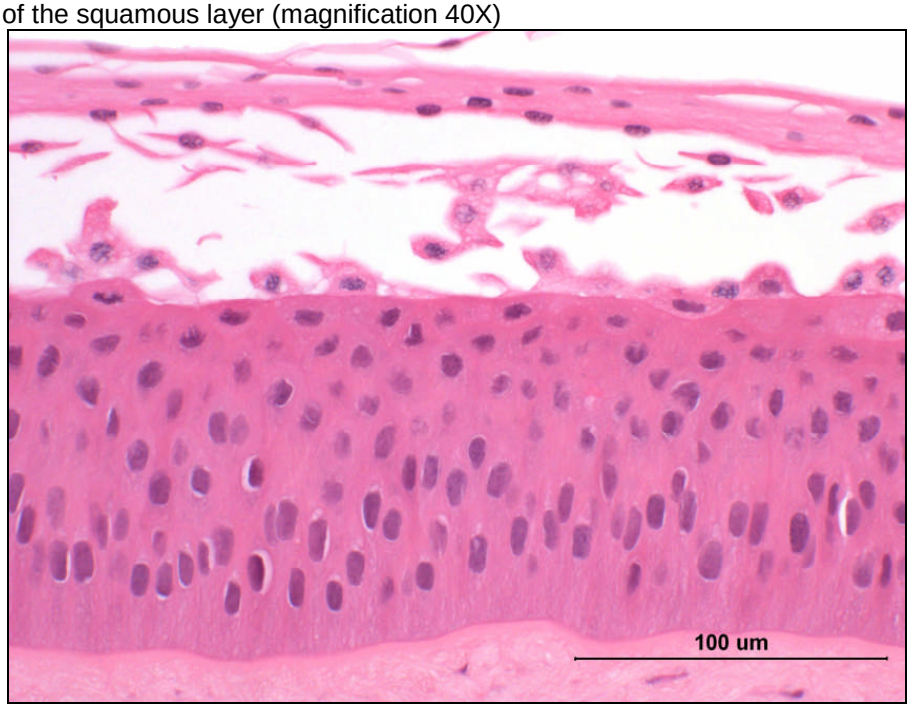
Opacity = -1	Permeability = 0.104	*In Vitro* Score = 0.6	pH = 11.5

05AE37, neat, 3-minute exposure, 120-minute post-exposure (08/18/05) - Epithelium showing the loss of the surface squamous epithelium (magnification 475x)



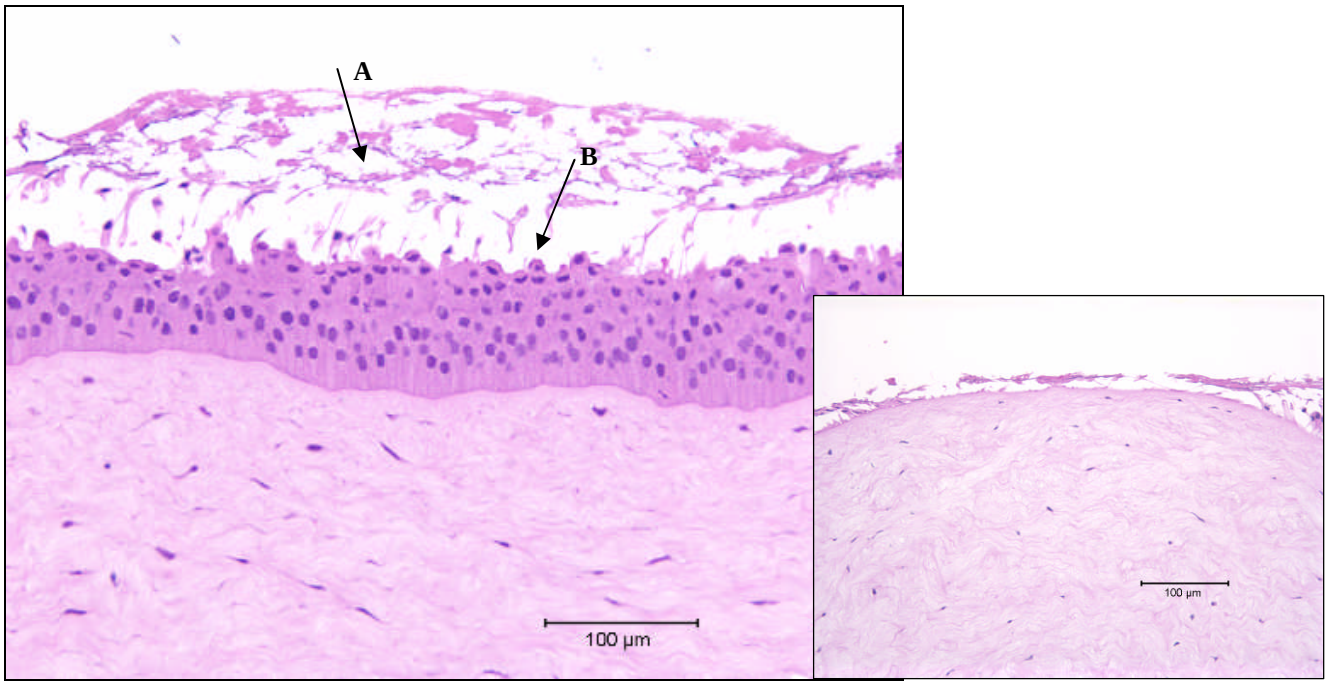
Opacity = 0.3	Permeability = 0.214	*In Vitro* Score = 3.5	pH = 10.0

06AH04, neat, 3-minute exposure, 120-minute post-exposure (10/17/06) – Epithelium with sloughing of the squamous layer (magnification 40X)



Opacity = 2.3	Permeability = 0.146	*In Vitro* Score = 4.5	pH = 5.0

05AE37, neat, 10-minute exposure, 120-minute post-exposure (08/18/05) - Epithelium showing loss of the squamous (A) and upper wing cell layers (B) (magnification 237x)



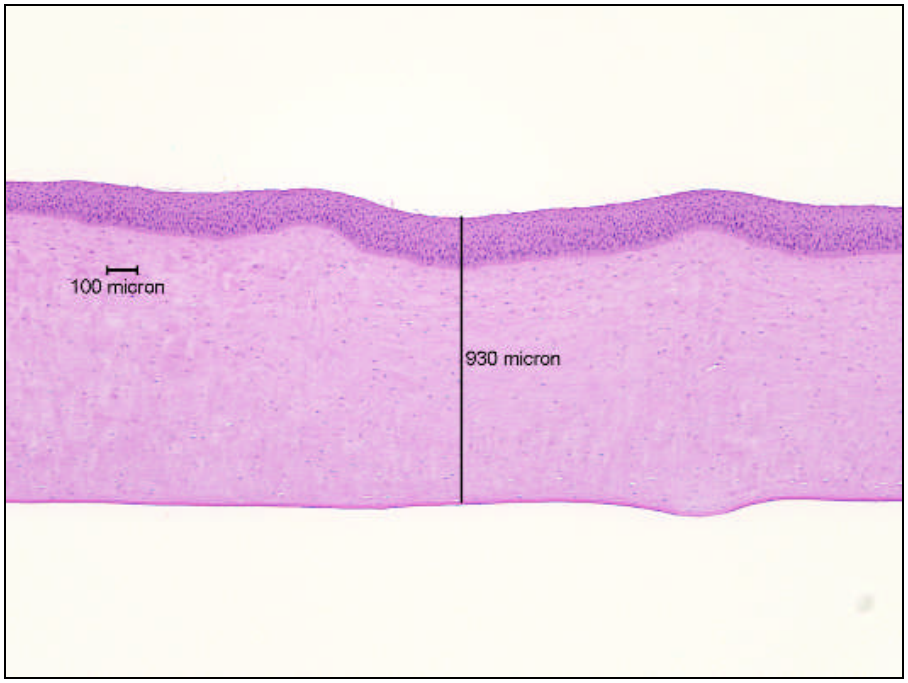
Opacity = 5	Permeability = 1.05	*In Vitro* Score = 20.8	pH = 10.0

06AH04, neat, 10-minute exposure, 120-minute post-exposure (10/17/06) – Epithelium with necrosis of the squamous and wing layers and sloughing of the squamous layer (magnification 40X)

Opacity = 11	Permeability = 0.81	*In Vitro* Score = 23.2	pH = 5.0

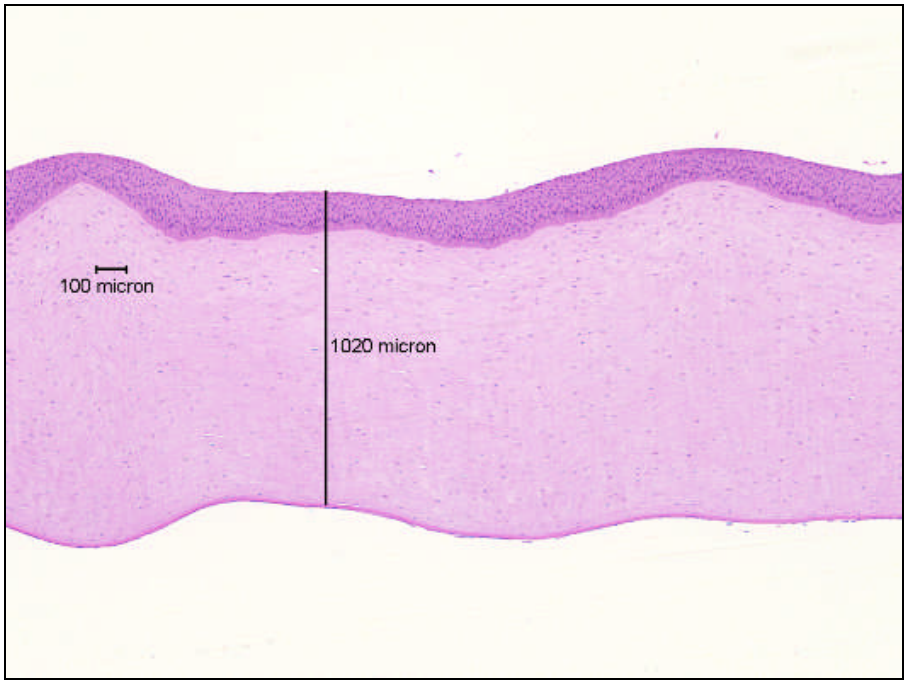
Full Thickness

05AE39, neat, 3-minute exposure, 120-minute post-exposure (08/18/05) - Full thickness (magnification 48x)



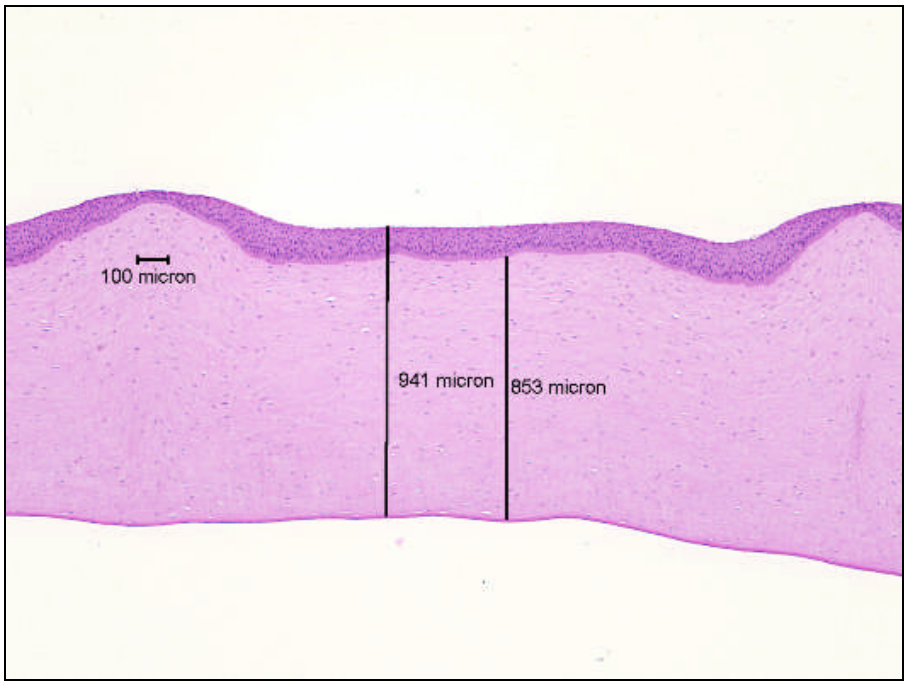
Opacity = -0.7	Permeability = 0.023	*In Vitro* Score = -0.3	pH = 11.5

05AE39, neat, 10-minute exposure, 120-minute post-exposure (08/18/05) - Full thickness (magnification 48x)



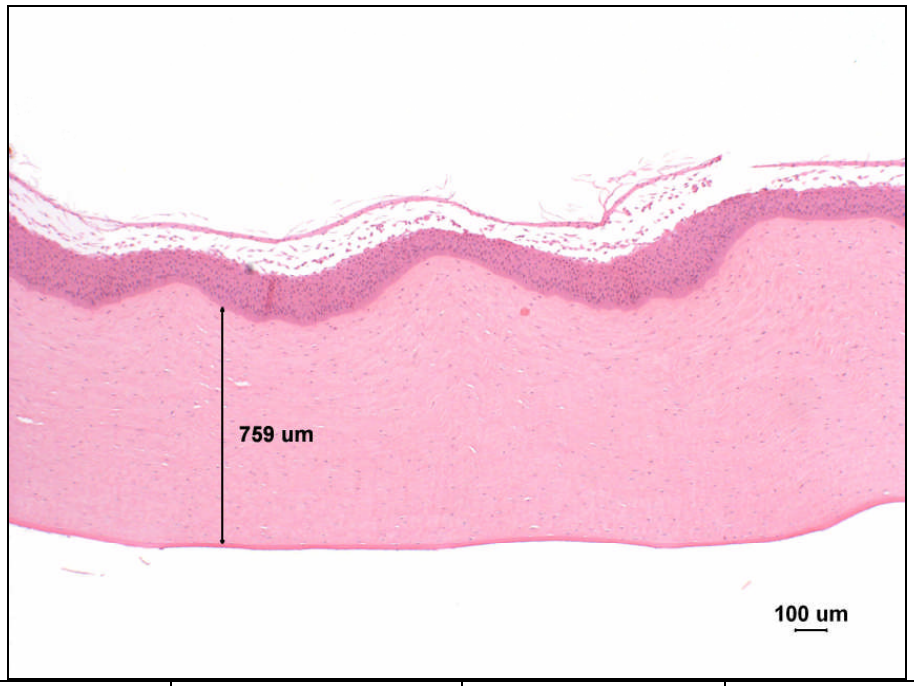
Opacity = -1	Permeability = 0.104	*In Vitro* Score = 0.6	pH = 11.5

05AE37, neat, 3-minute exposure, 120-minute post-exposure (08/18/05) - Full thickness (magnification 48x)



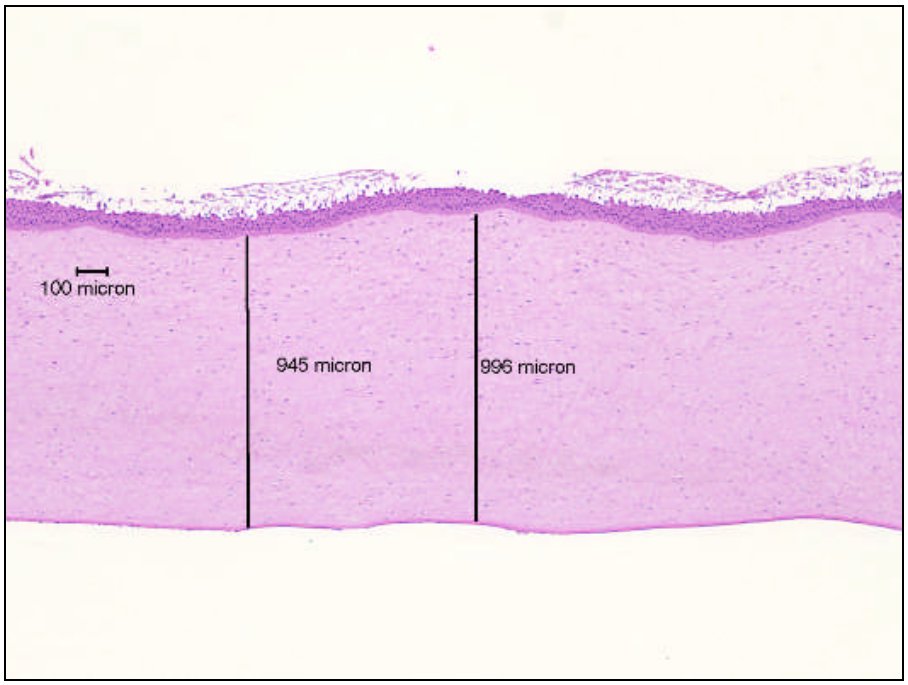
Opacity = 0.3	Permeability = 0.214	*In Vitro* Score = 3.5	pH = 10.0

06AH04, neat, 3-minute exposure, 120-minute post-exposure (10/17/06) – Full thickness (magnification 4X)



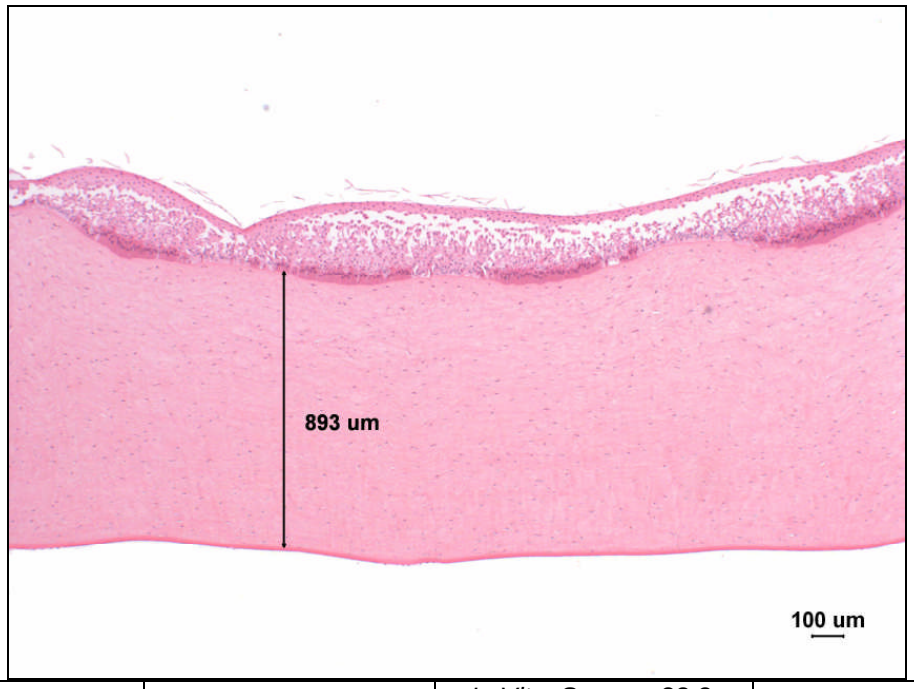
Opacity = 2.3	Permeability = 0.146	*In Vitro* Score = 4.5	pH = 5.0

05AE37, neat, 10-minute exposure, 120-minute post-exposure (08/18/05) - Full thickness (magnification 48x)



Opacity = 5	Permeability = 1.05	*In Vitro* Score = 20.8	pH = 10.0

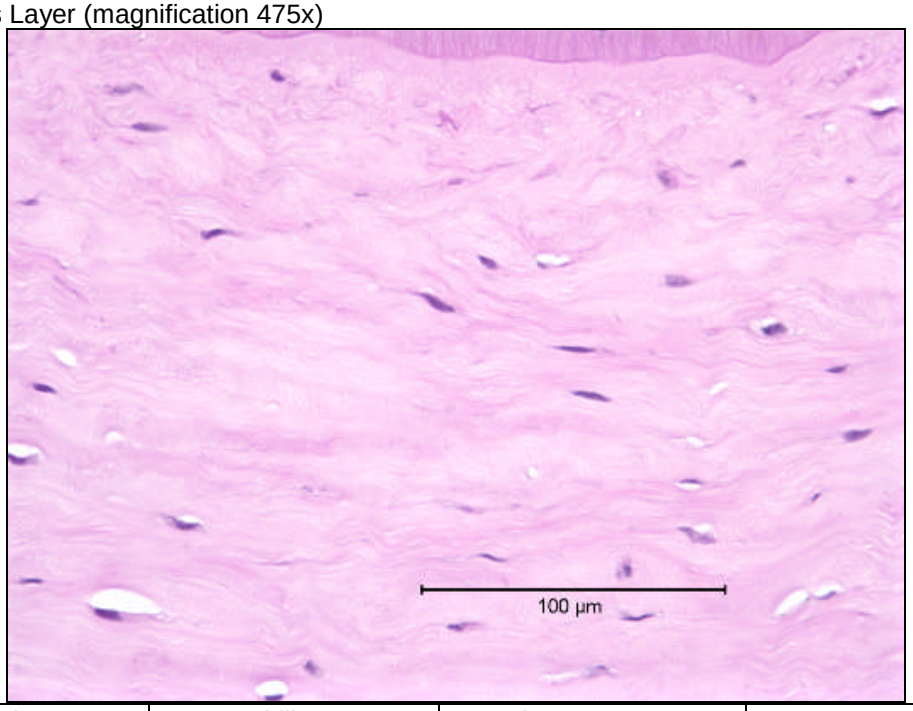
06AH04, neat, 10-minute exposure, 120-minute post-exposure (10/17/06) – Full thickness (magnification 4X)



Opacity = 11	Permeability = 0.81	*In Vitro* Score = 23.2	pH = 5.0

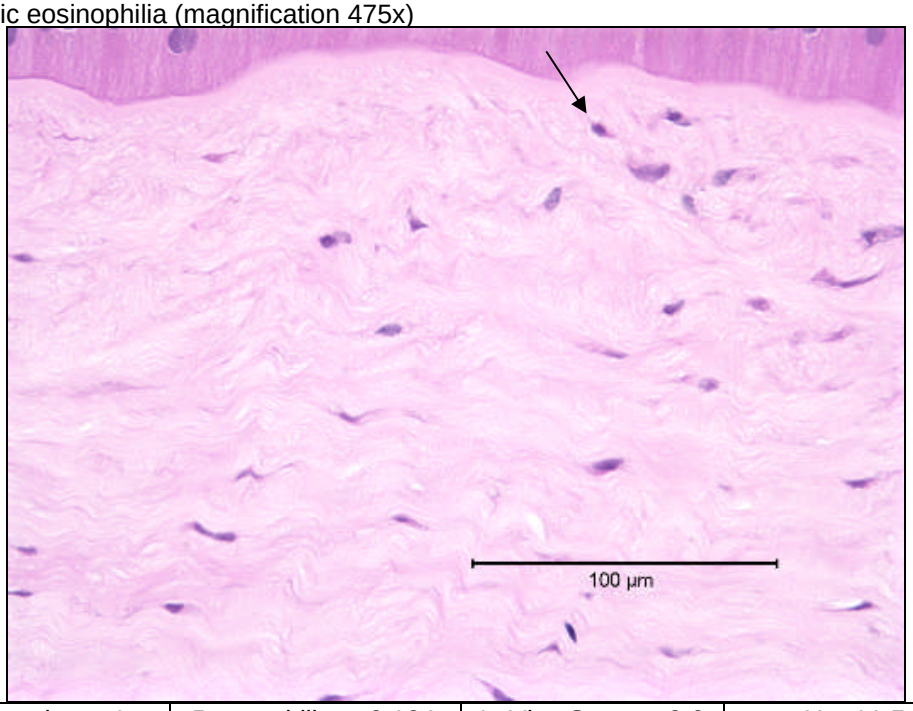
Upper Stroma

05AE39, neat, 3-minute exposure, 120-minute post-exposure (08/18/05) - Stroma directly below Bowman's Layer (magnification 475x)



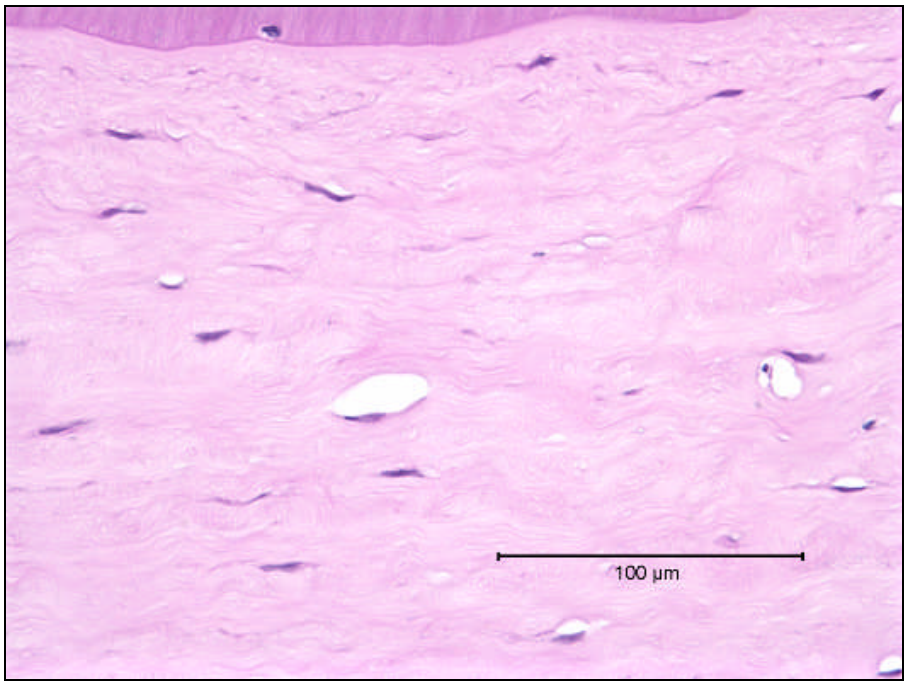
Opacity = -0.7	Permeability = 0.023	*In Vitro* Score = -0.3	pH = 11.5

05AE39, neat, 10-minute exposure, 120-minute post-exposure (08/18/05) - Stroma directly below Bowman's Layer showing slight collagen matrix vacuolization and rare keratocytes with cytoplasmic eosinophilia (magnification 475x)



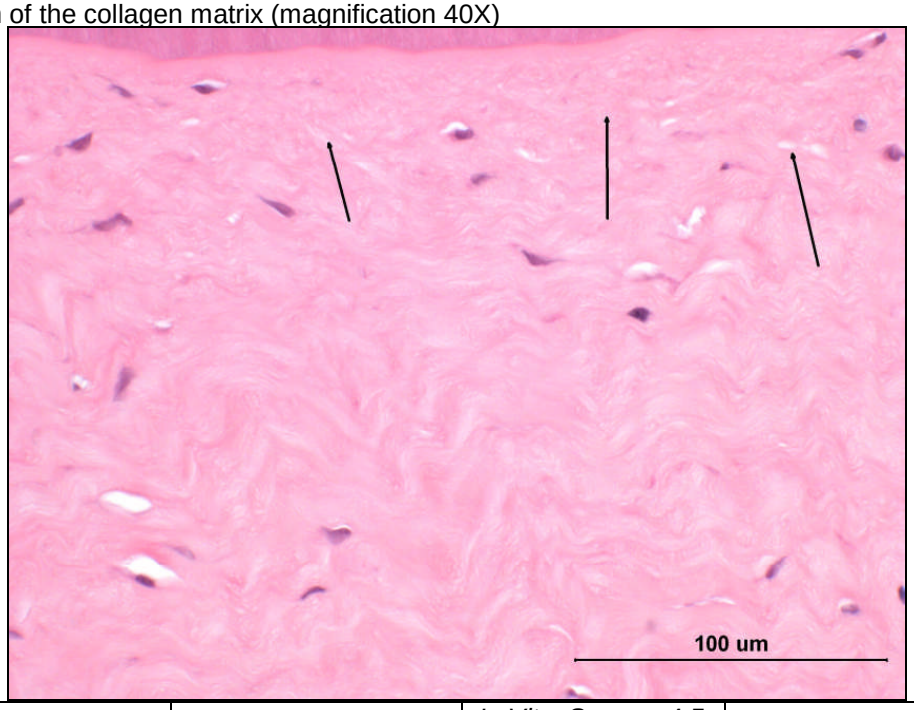
Opacity = -1	Permeability = 0.104	*In Vitro* Score = 0.6	pH = 11.5

05AE37, neat, 3-minute exposure, 120-minute post-exposure (08/18/05) - Stroma directly below Bowman's Layer (magnification 475x)



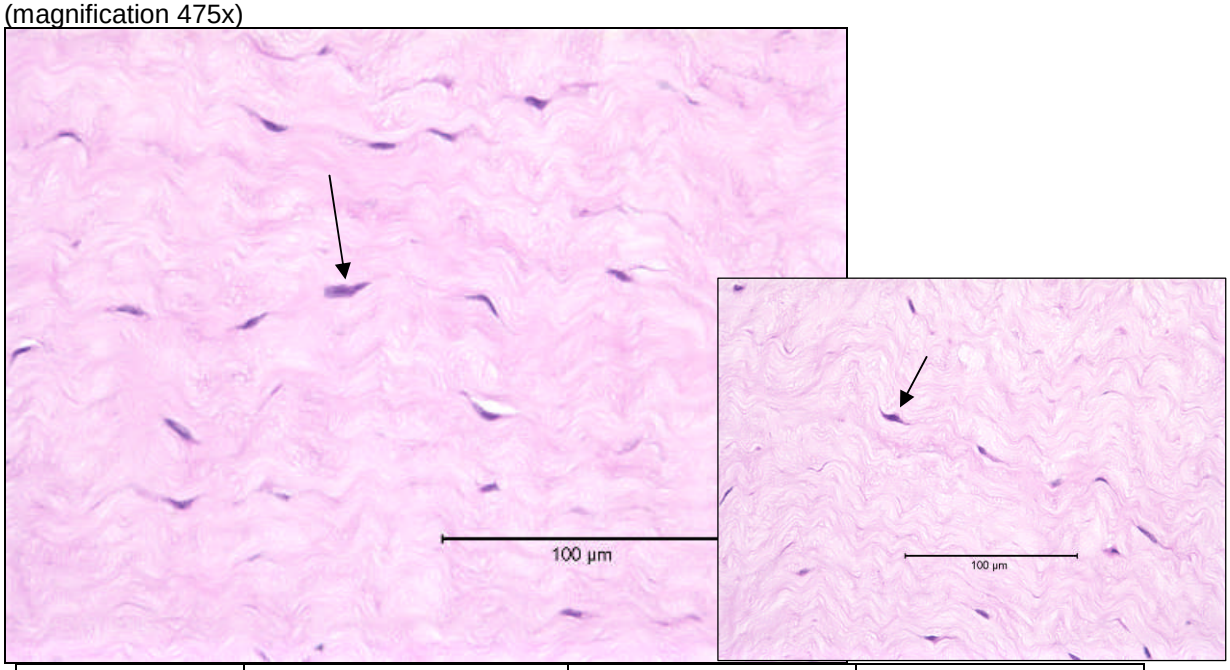
Opacity = 0.3	Permeability = 0.214	*In Vitro* Score = 3.5	pH = 10.0

06AH04, neat, 3-minute exposure, 120-minute post-exposure (10/17/06) – Upper stroma with expansion of the collagen matrix (magnification 40X)



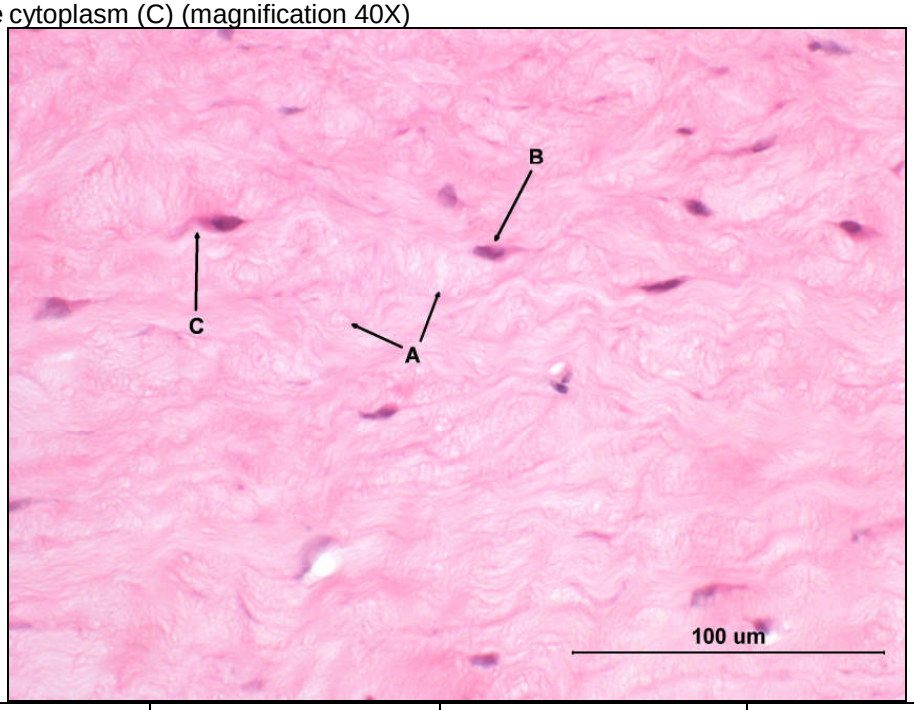
Opacity = 2.3	Permeability = 0.146	*In Vitro* Score = 4.5	pH = 5.0

05AE37, neat, 10-minute exposure, 120-minute post-exposure (08/18/05) - Stroma at 20% depth under a zone of more intact epithelium showing moderate collagen matrix vacuolization and keratocytes with somewhat enlarged nuclei and moderate cytoplasmic eosinophilia (magnification 475x). Inset - Stroma at 20% depth under a zone of basal cell loss showing more marked collagen matrix vacuolization and keratocytes with enlarged nuclei and cytoplasmic eosinophilia (magnification 475x)



Opacity = 5	Permeability = 1.05	*In Vitro* Score = 20.8	pH = 10.0

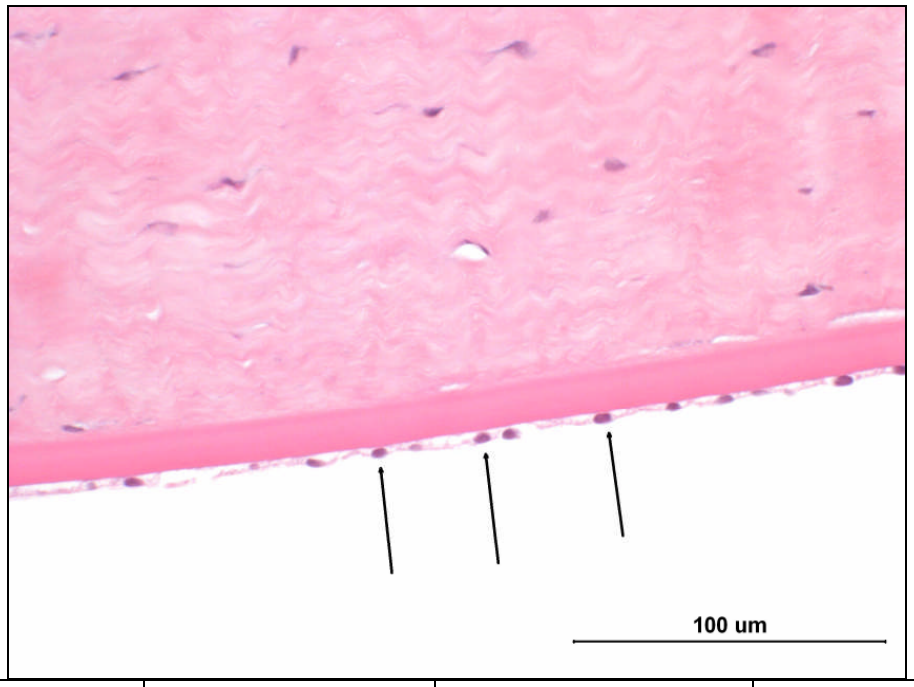
06AH04, neat, 10-minute exposure, 120-minute post-exposure (10/17/06) – Upper stroma with expansion of the collagen matrix (A), vacuolated keratocyte nuclei (B), and eosinophilic keratocyte cytoplasm (C) (magnification 40X)



Opacity = 11	Permeability = 0.81	*In Vitro* Score = 23.2	pH = 5.0

Lower Stroma and Endothelium

06AH04, neat, 10-minute exposure, 120-minute post-exposure (10/17/06) – Endothelium with hyperchromatic nuclei (magnification 40X)



Opacity = 11	Permeability = 0.81	*In Vitro* Score = 23.2	pH = 5.0