

Quiz for launch of:
5th edition of Ghadially's
Ultrastructural Pathology of the Cell and Matrix
Chapter 9 Melanosomes

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Q1

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Ultrastructural Pathology of the Cell and Matrix
Chapter 9 Melanosomes

Q1. How can you tell whether a cell at the base of the epidermis is a melanocyte or a keratinocyte?

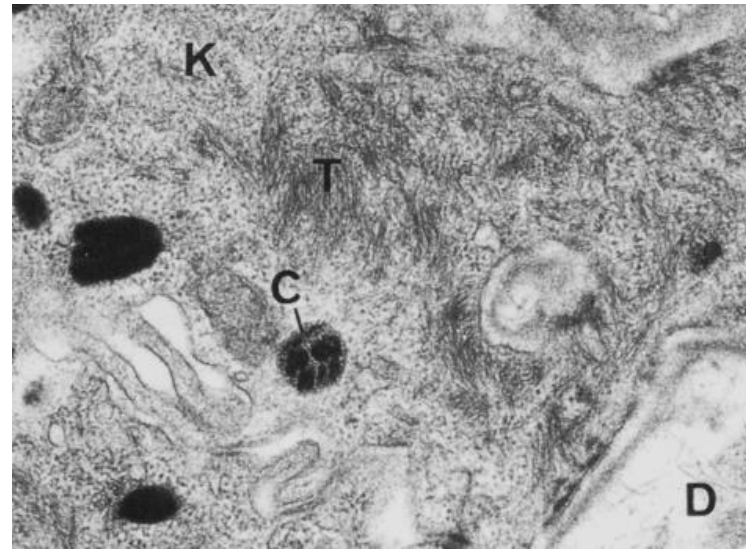
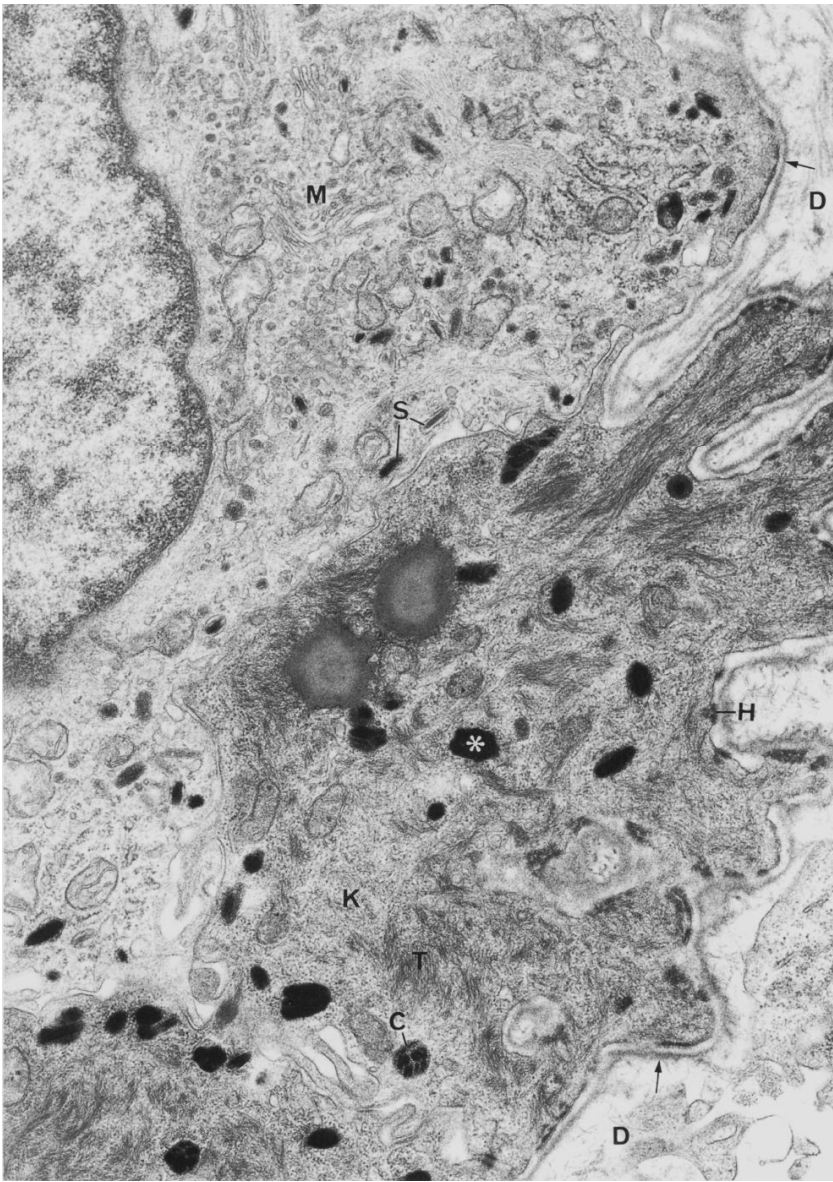
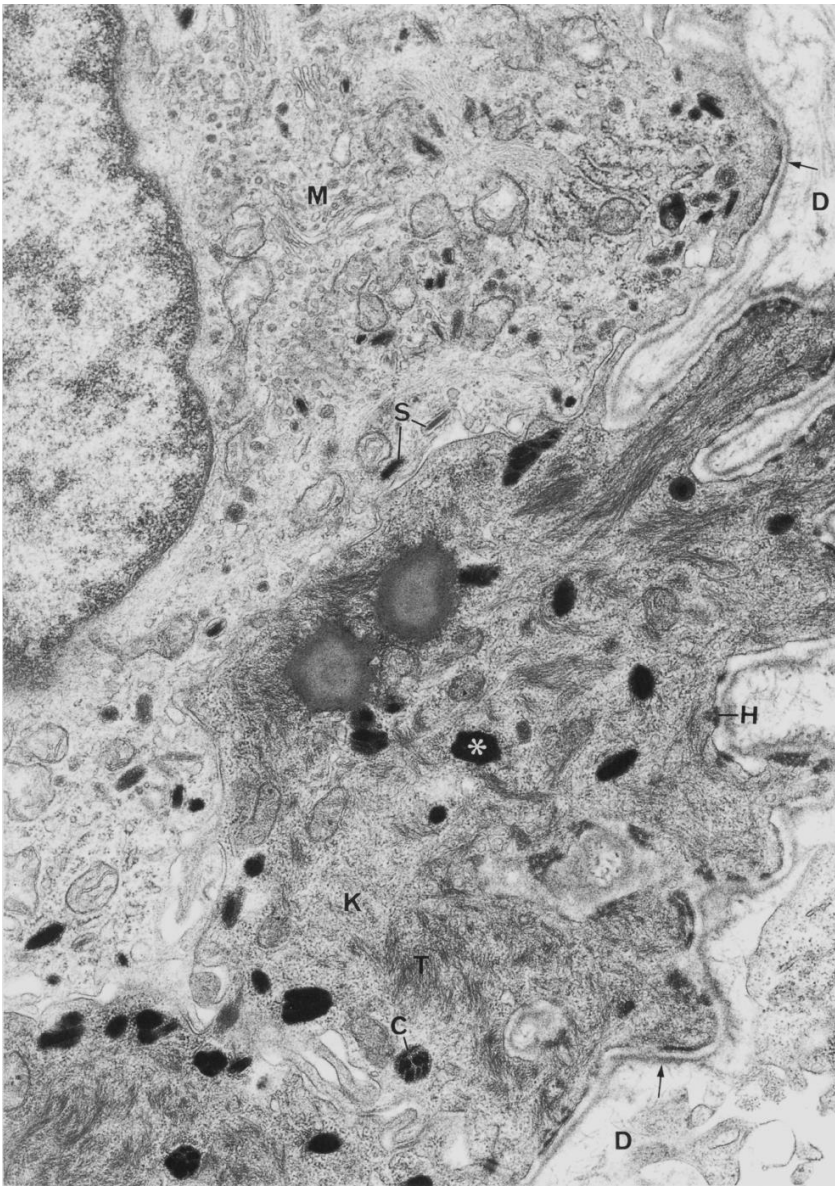


PLATE 9.2 Electron micrograph from normal skin (Caucasoid) showing a melanocyte (M) and a keratinocyte (K) separated from the dermis (D) by basal lamina (arrows).

Q1

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Q1. How can you tell whether a cell at the base of the epidermis is a melanocyte or a keratinocyte?

A1. You will find the answer to this in the legend of plate 9.2 and on page 463

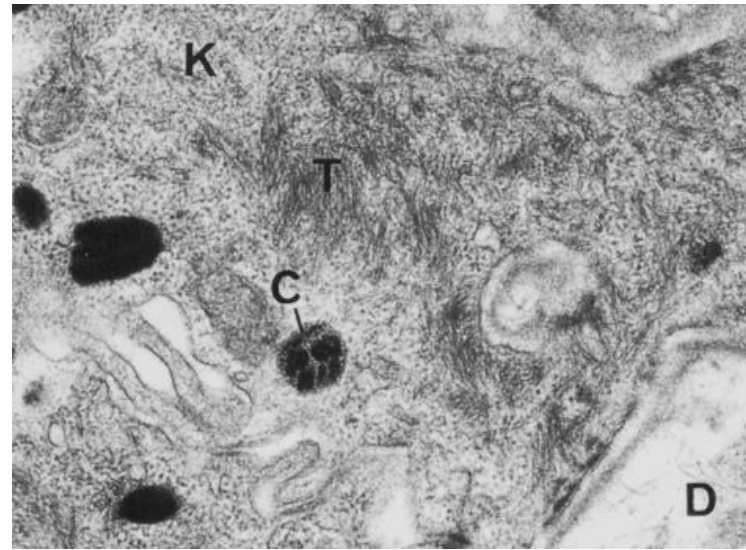
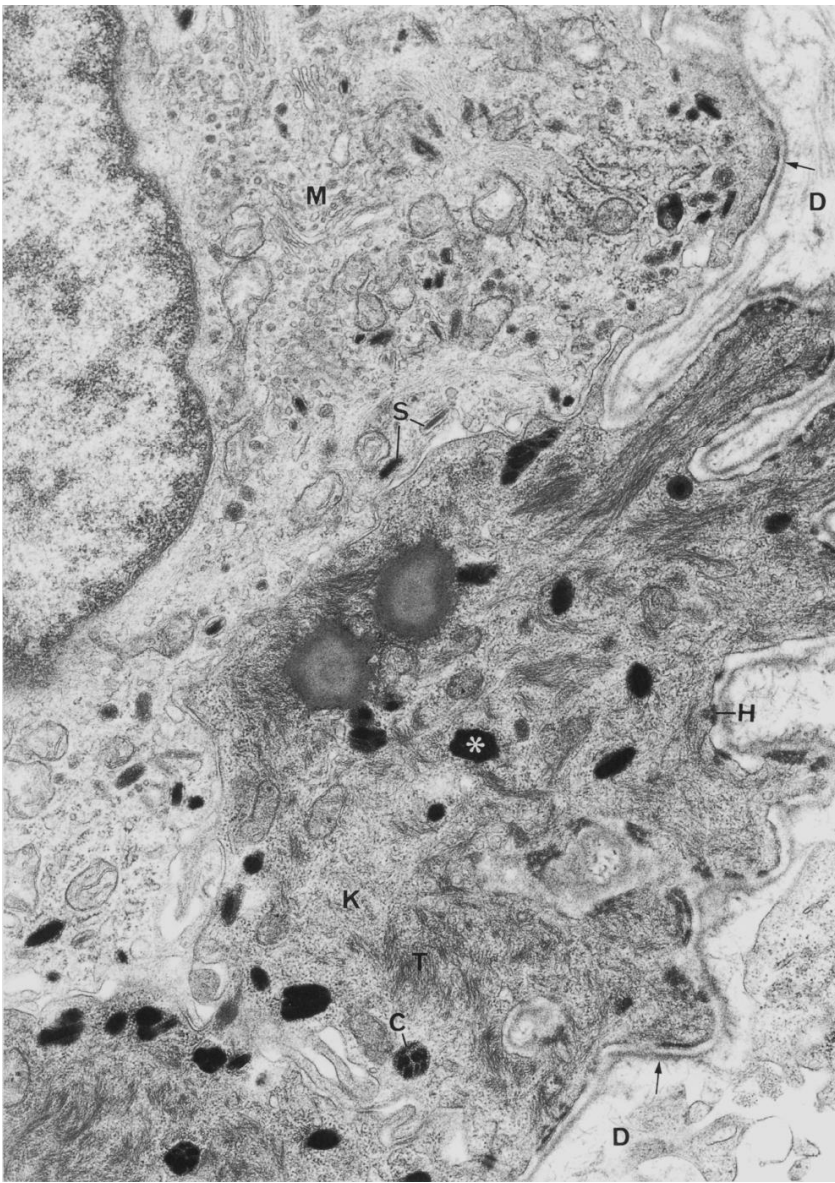


PLATE 9.2 Electron micrograph from normal skin (Caucasoid) showing a melanocyte (M) and a keratinocyte (K) separated from the dermis (D) by basal lamina (arrows).

Q2



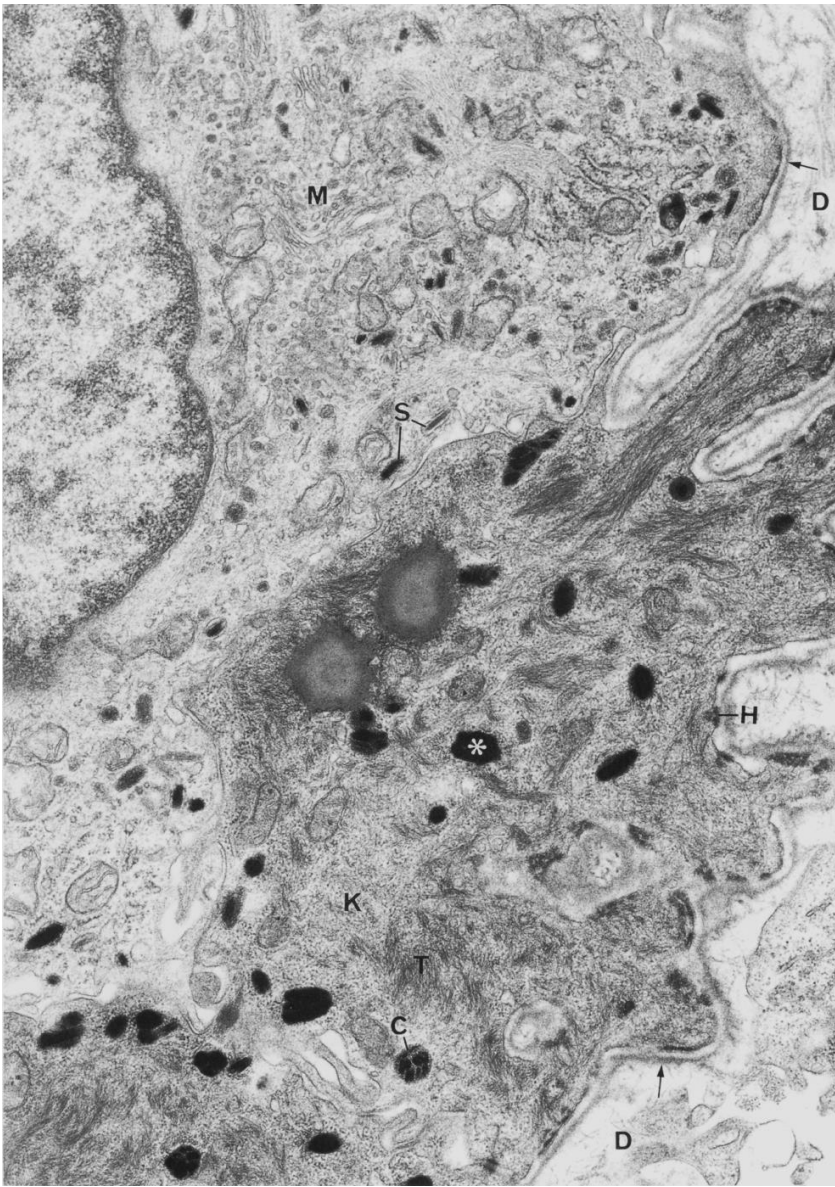
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Q2. Which enzyme is present in all melanosomes?

PLATE 9.2 Electron micrograph from normal skin (Caucasoid) showing a melanocyte (M) and a keratinocyte (K) separated from the dermis (D) by basal lamina (arrows).

Q2

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Q2. Which enzyme is present in all melanosomes?

A2. You will find the answer to this on bottom right-hand side of page 462

PLATE 9.2 Electron micrograph from normal skin (Caucasoid) showing a melanocyte (M) and a keratinocyte (K) separated from the dermis (D) by basal lamina (arrows).

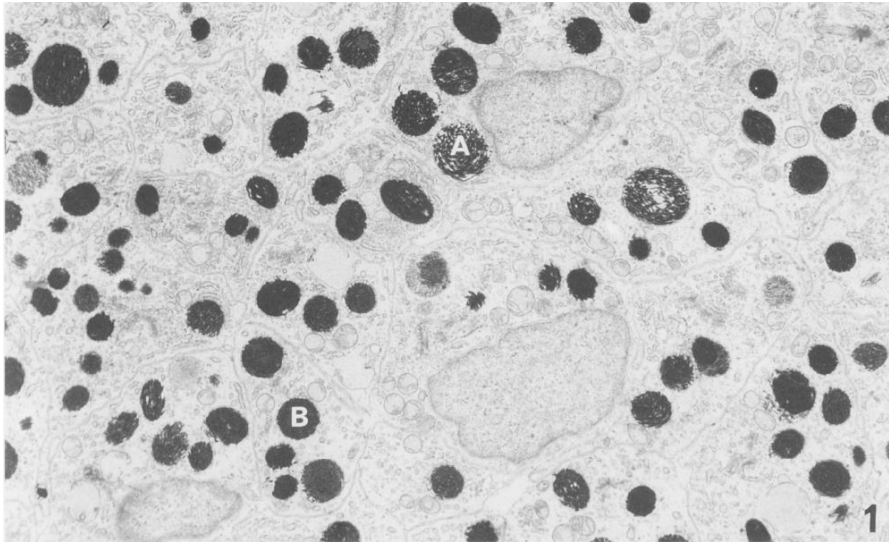


PLATE 9.3 From the pigmented epithelium of the eye of a 10-week-old human fetus. Stage III (A), stage IV (B) melanosomes.

Q3. Other than size, in what way do ocular or uveal tract and epidermal melanosomes differ?

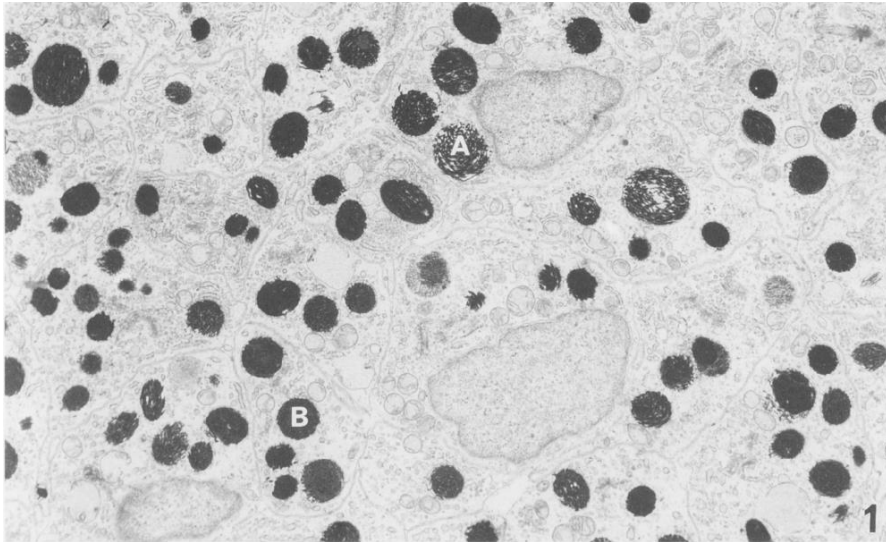


PLATE 9.3 From the pigmented epithelium of the eye of a 10-week-old human fetus. Stage III (A), stage IV (B) melanosomes.

Q3. Other than size, in what way do ocular and epidermal melanosomes differ?

A3. The answer to this can be found in the first paragraph of the chapter on page 461

Q4

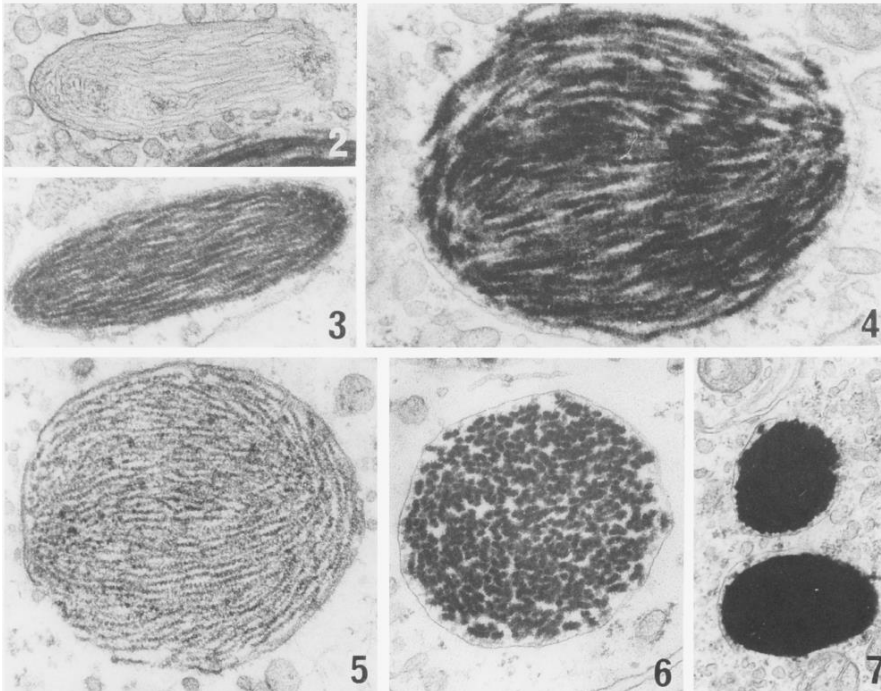
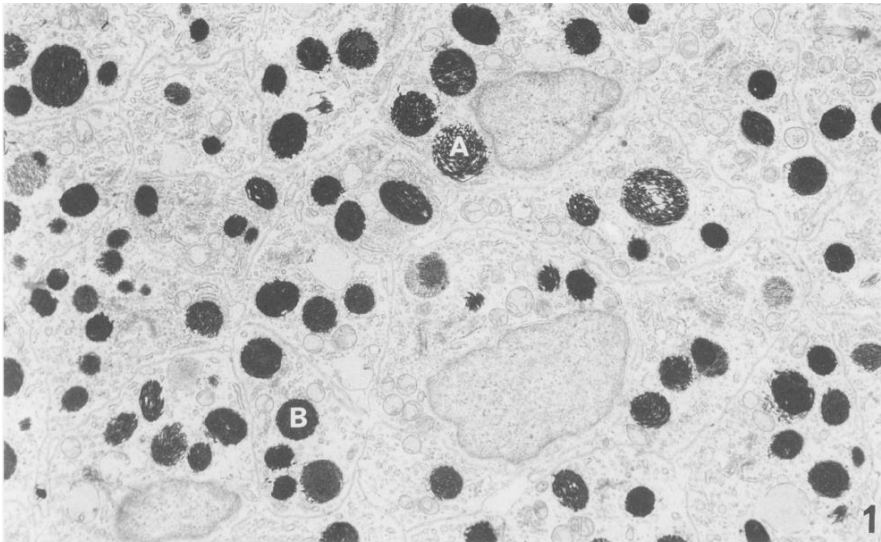


PLATE 9.3 From the pigmented epithelium of the eye of a 10-week-old human fetus.

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Q4. How many stages of development do melanosomes go through and can you identify them in figures 2 to 7 of Plate 9.3 and figures 2 to 4 in Plate 9.20?

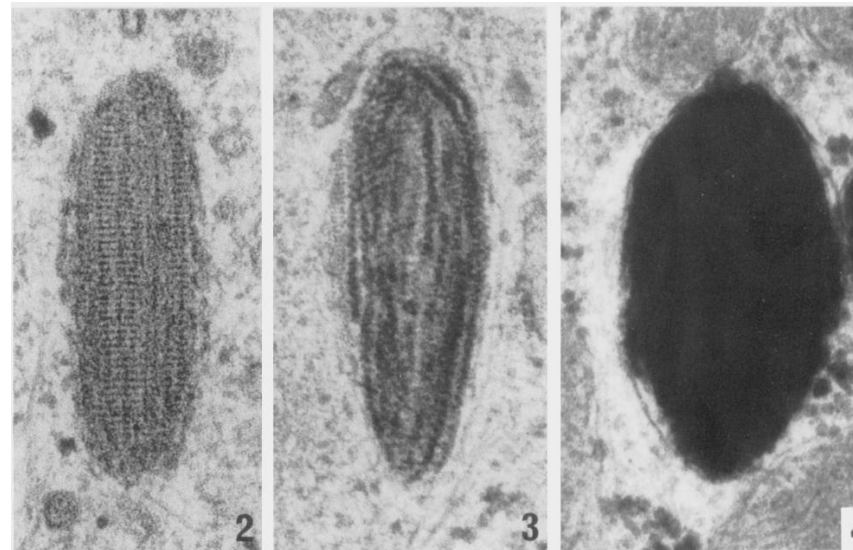


PLATE 9.20 Melanoma

Q4

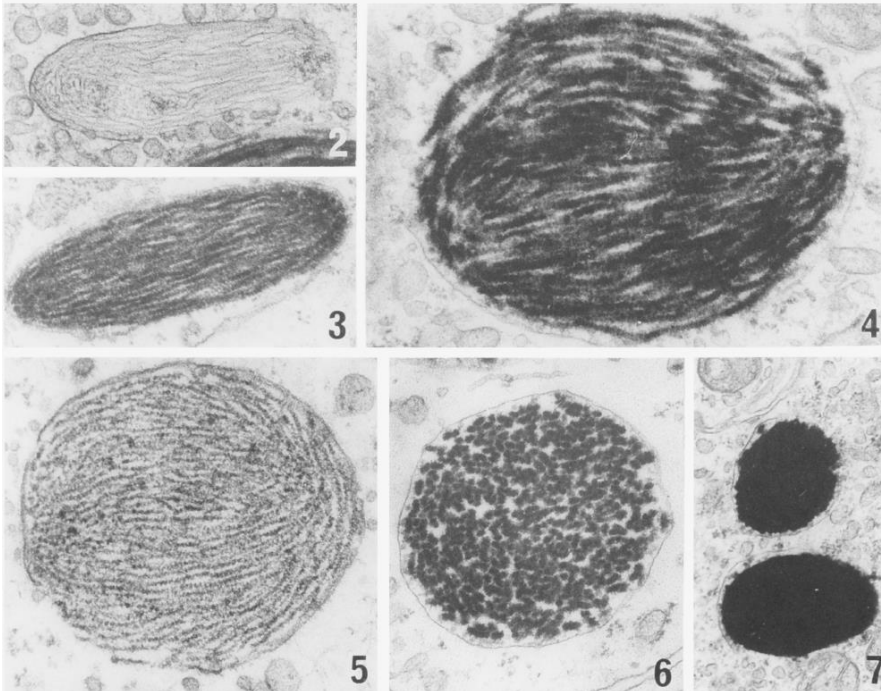
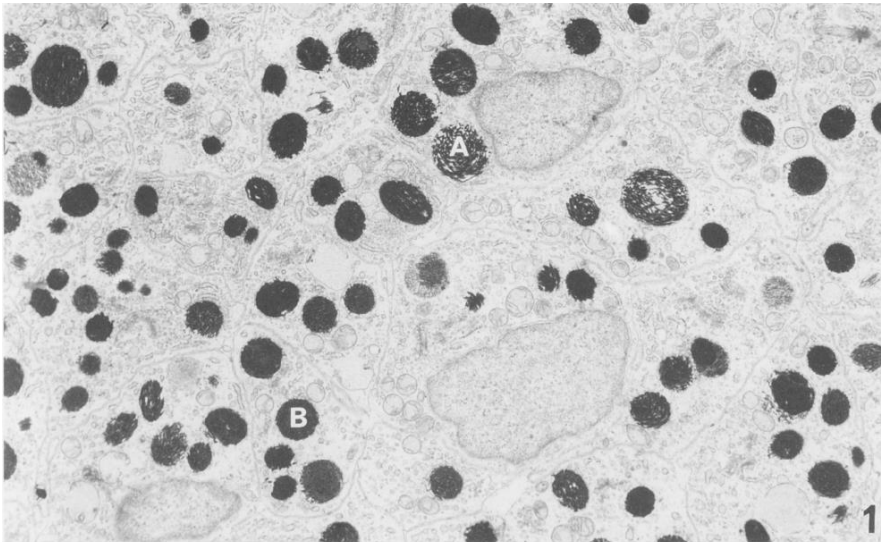


PLATE 9.3 From the pigmented epithelium of the eye of a 10-week-old human fetus.

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Chapter 9 Melanosomes

Q4. How many stages of development do melanosomes go through and can you identify them in figures 2 to 7 of Plate 9.3 and figures 2 to 4 in Plate 9.20?

A4. The answer to these questions can be found at the bottom left-hand side of page 463, the remainder of the legend to plate 9.3 on page 464 and the remainder of the legend in Plate 9.20 on page 480

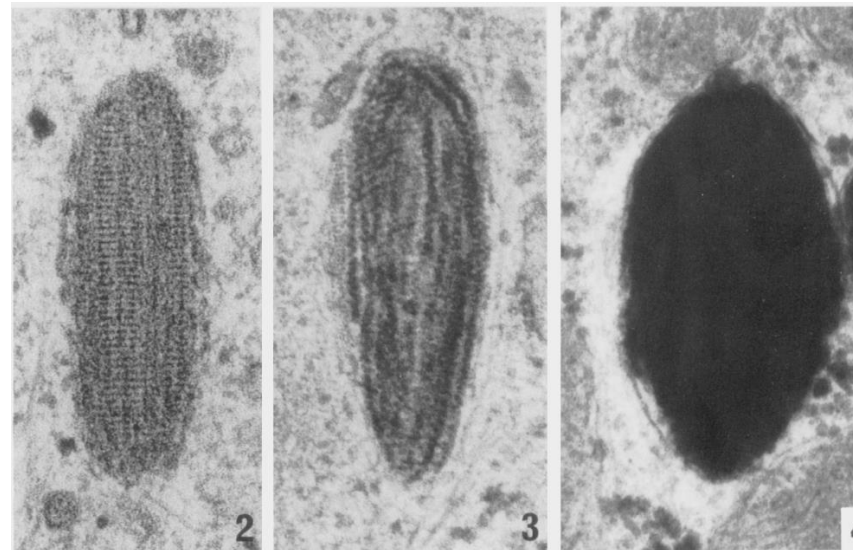
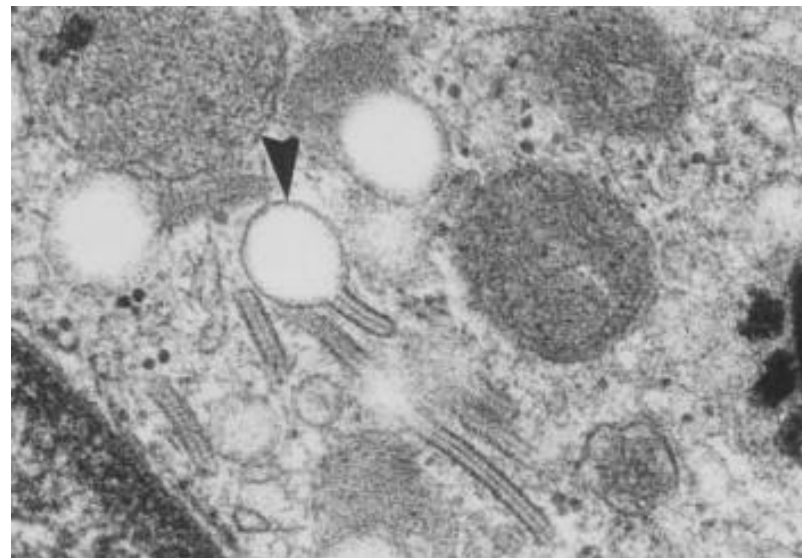
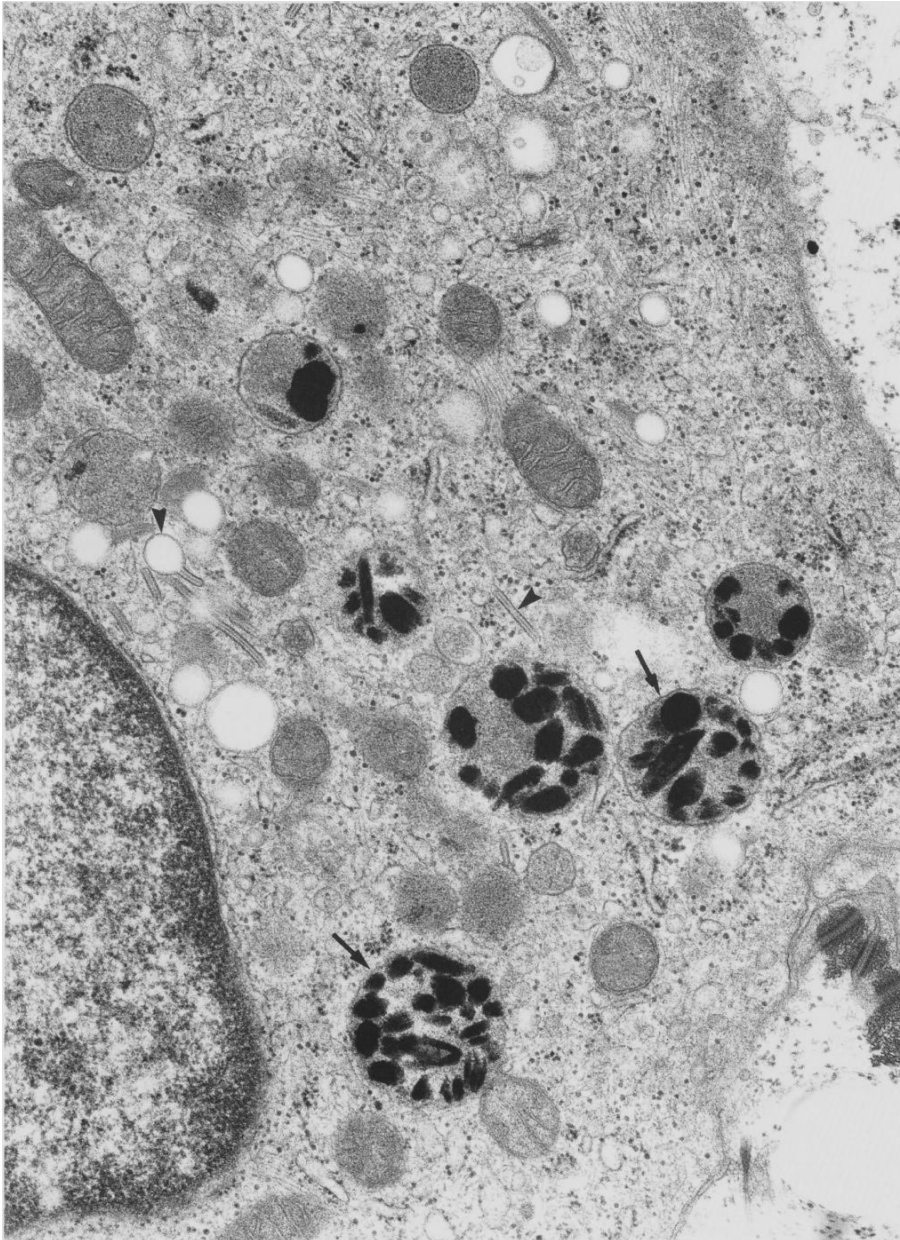


PLATE 9.20 Melanoma

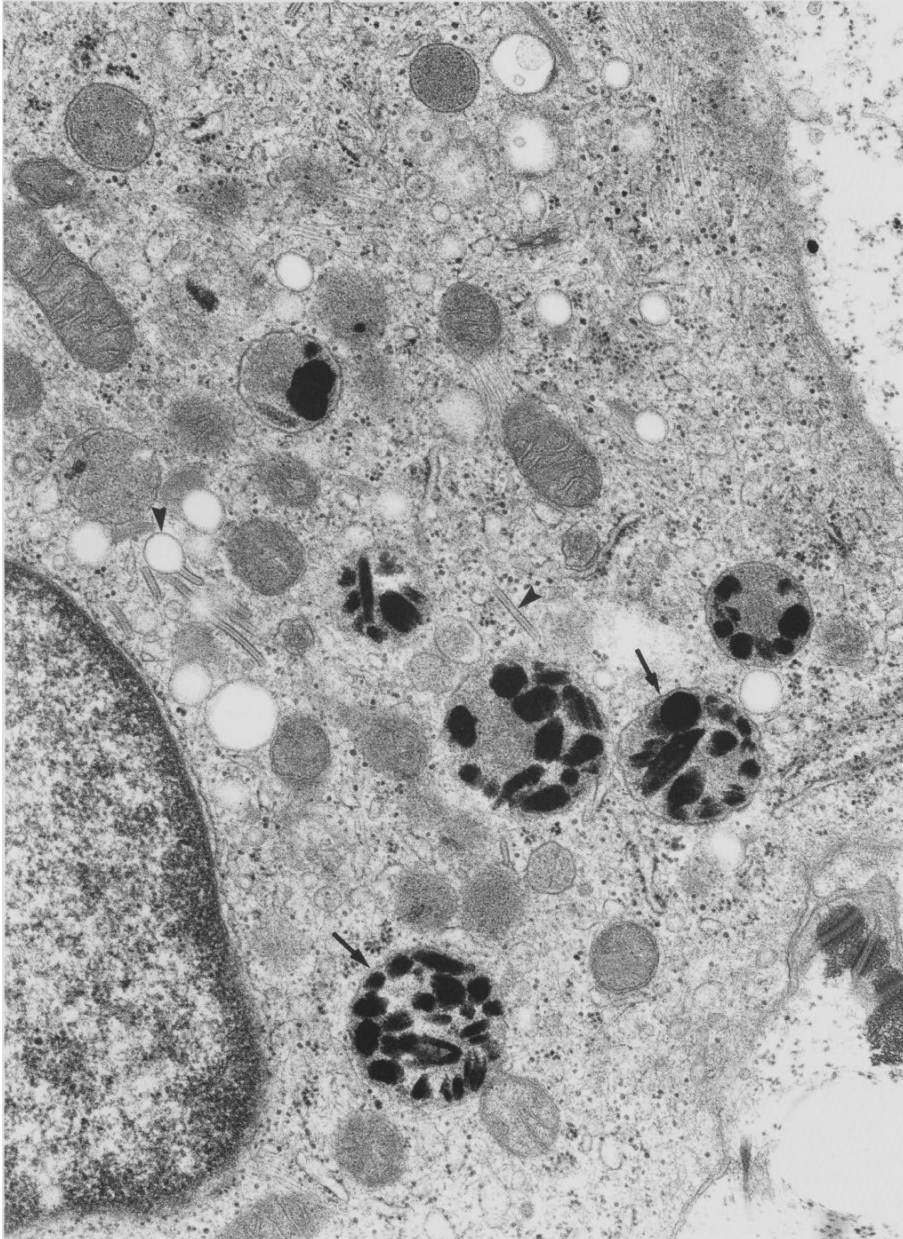
Q5

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Q5. Lysosomes take up melanosomes to form compound melanosomes in a number of cell types in skin – what kind of cell is this (see arrow-head)?



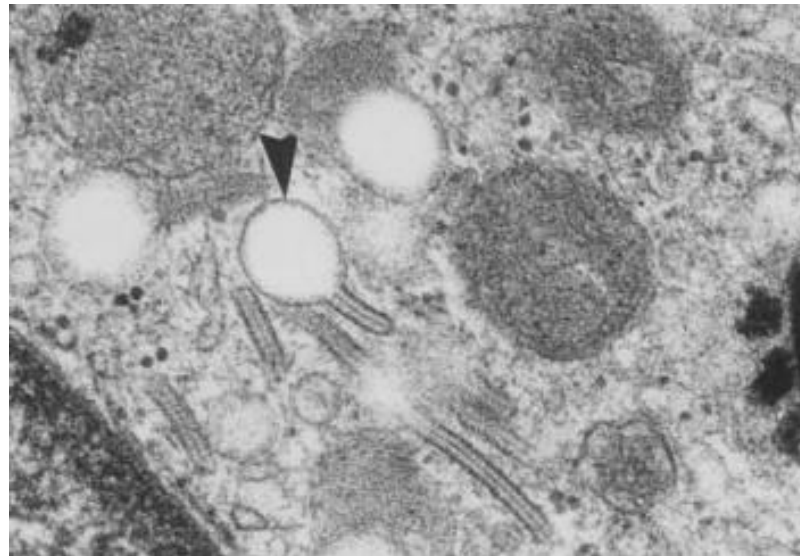
Q5



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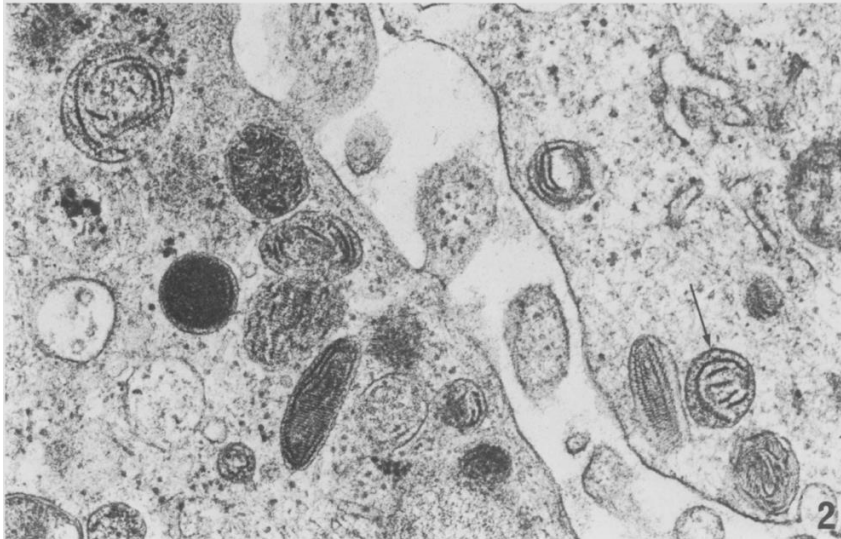
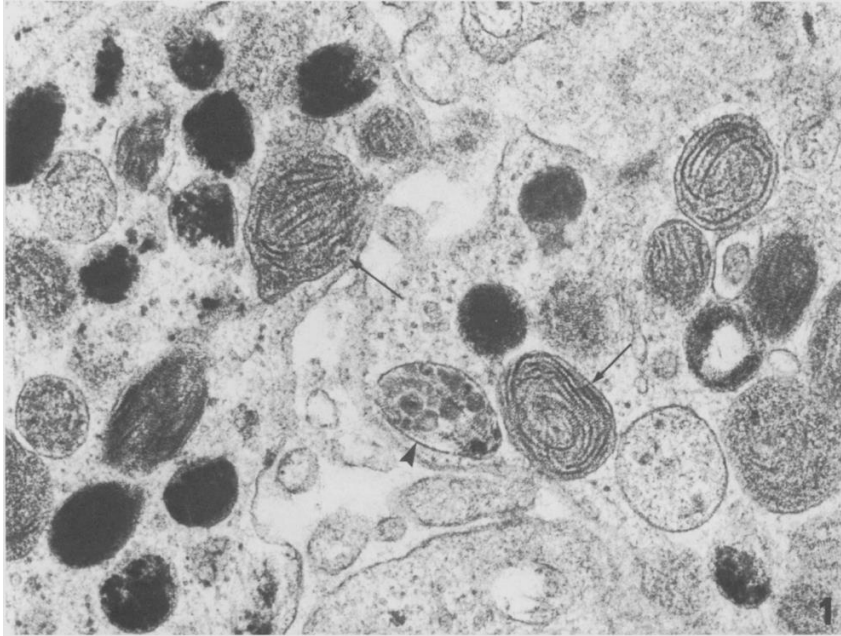
Q5. Lysosomes take up melanosomes in a number of cell types in skin – what kind of cell is this (see arrow-head for cell-specific organelle)?

A5. See legend for plate 9.6 on page 466 for answer.



Q6

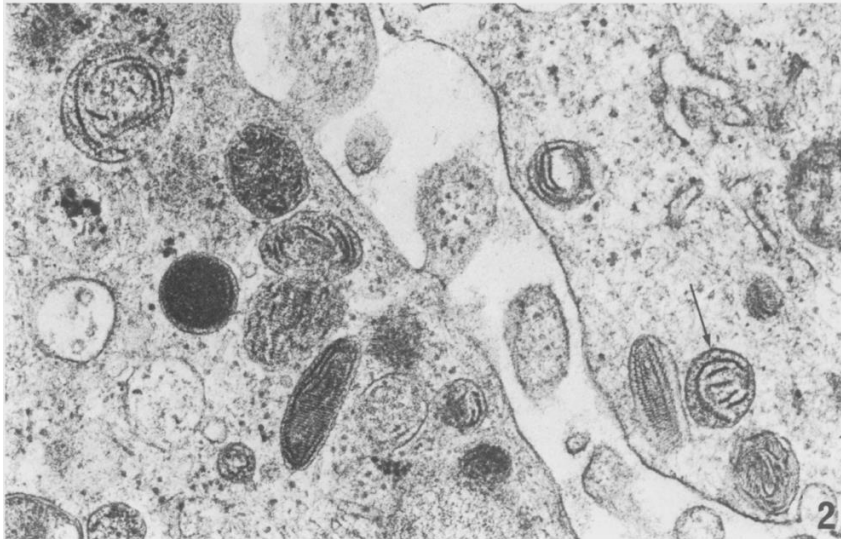
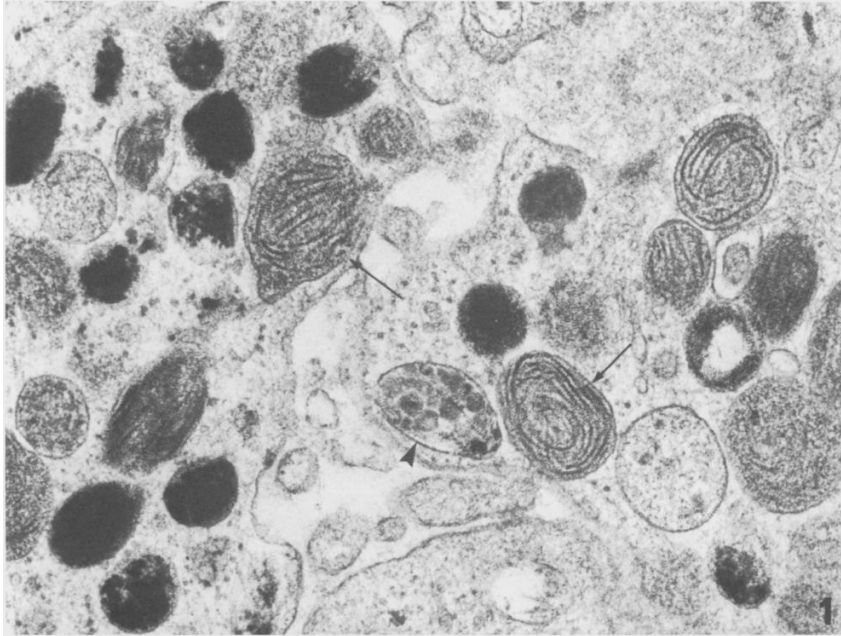
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Q6. How would you describe these melanosomes (see arrow) found in a malignant melanoma of skin?

Q6

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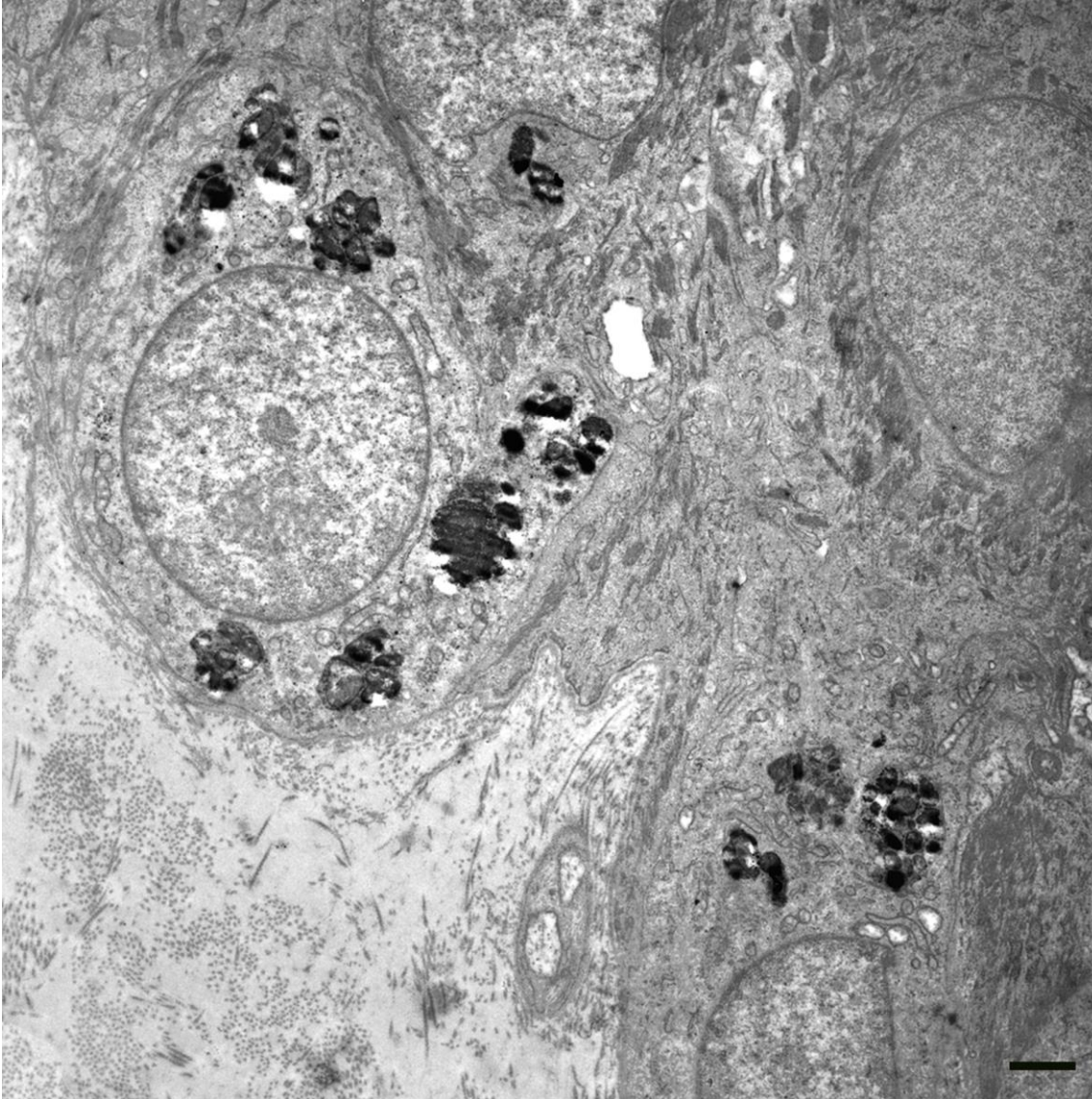
Q6. How would you describe these melanosomes (see arrow) found in a malignant melanoma of skin?

A6. See legend for plate 9.7 on page 468 for answer.

PLATE 9.7 Malignant melanoma of skin

Q7

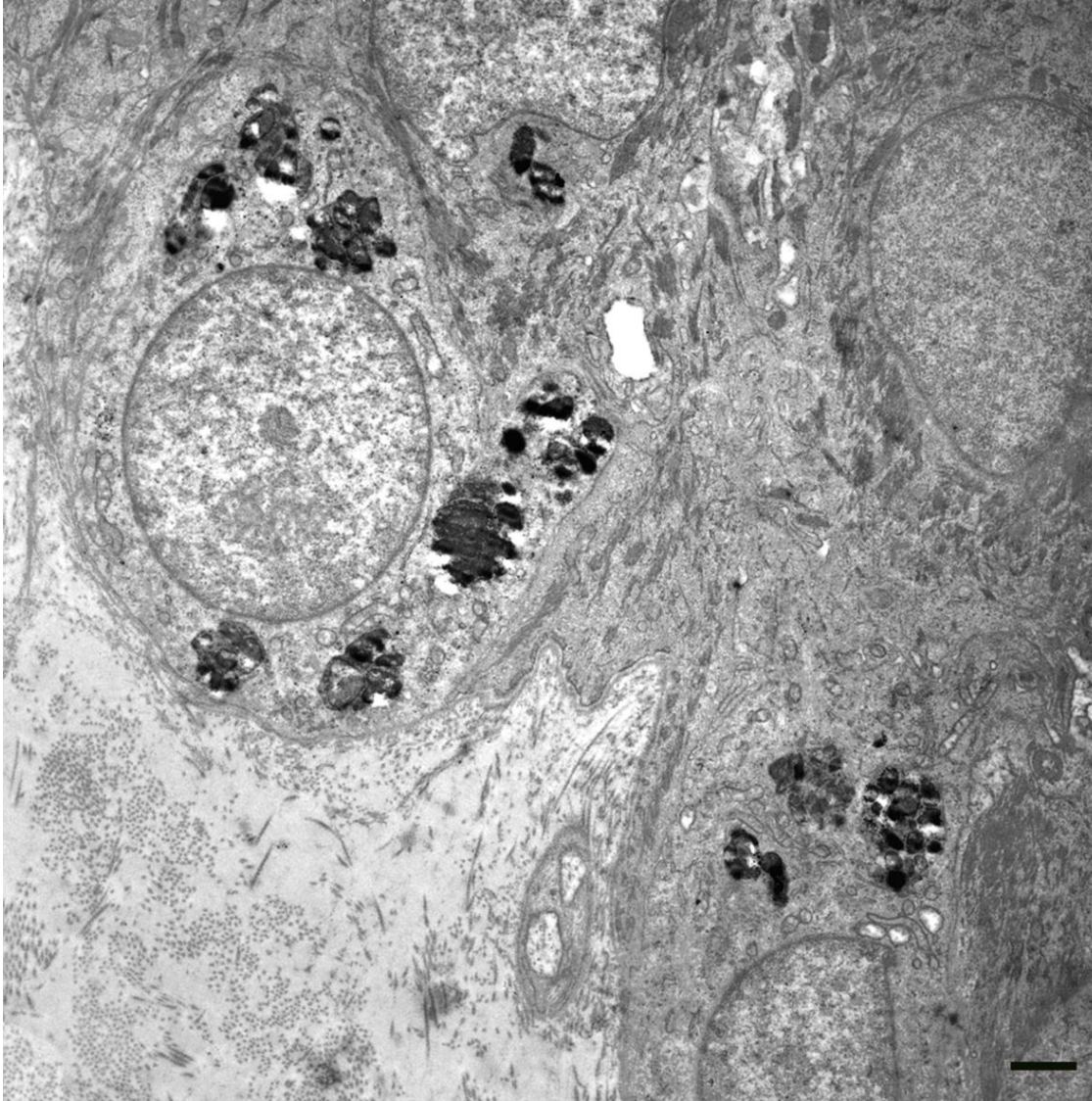
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Q7. In this patient with a syndromic diffuse pigmentary disorder, the skin biopsy showed melanocytes containing enlarged abnormal melanosomes and keratinocytes with no transferred melanosomes. Would you expect the skin to be hypo or hyper pigmented?

Q7

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Chapter 9 Melanosomes



Q7. In this patient with a syndromic diffuse pigmentary disorder, the skin biopsy showed melanocytes containing enlarged abnormal melanosomes and keratinocytes with no transferred melanosomes. Would you expect the skin to be hypo or hyper pigmented?

A7. See legend for Plate 9.11 on page 471 and discussion on the topic on pages 470-472

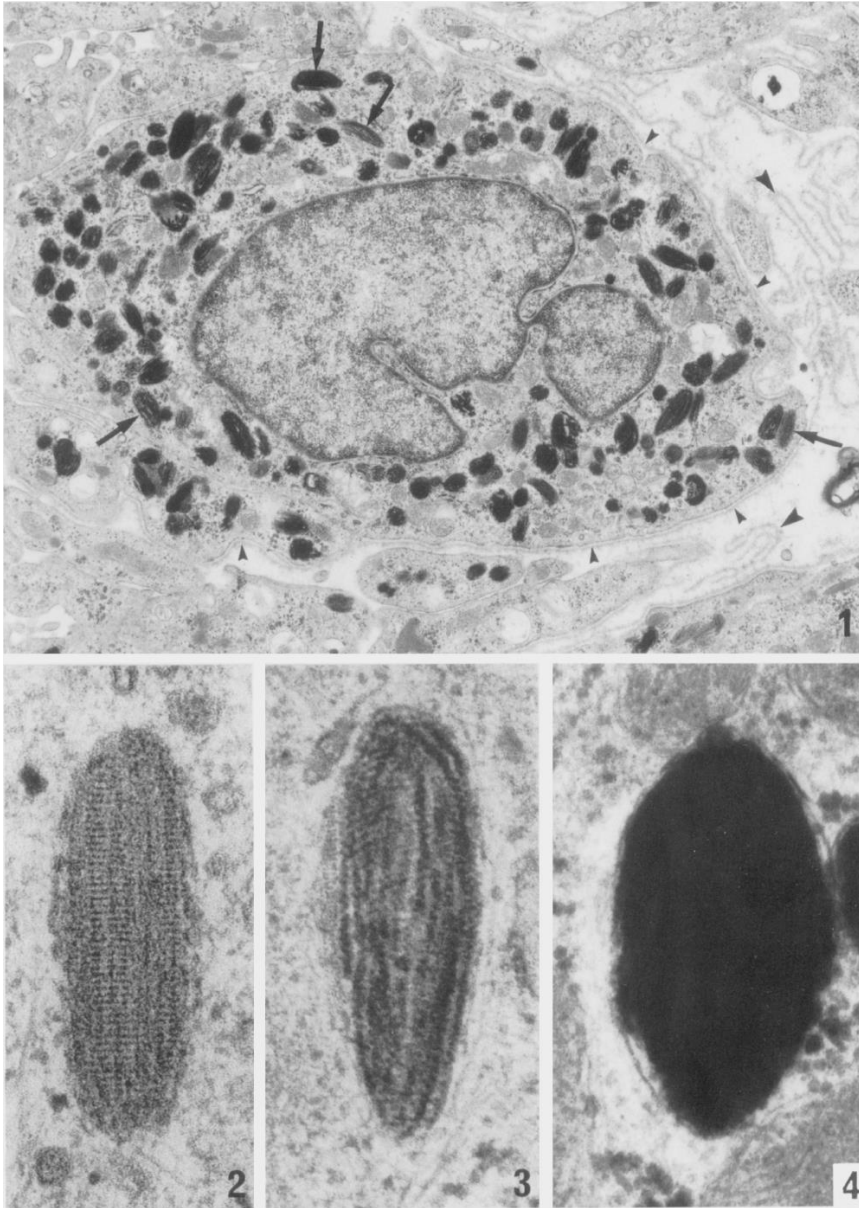


PLATE 9.20

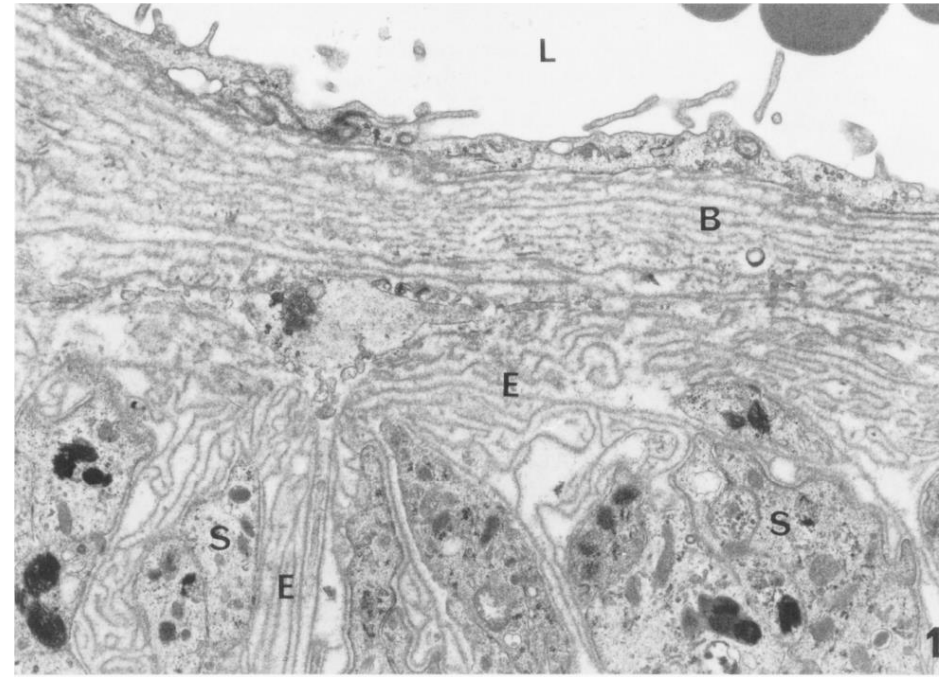


PLATE 9.21 Same tumor as Plate 9.20

Q8. What would you call this nerve sheath tumour which has prominent melanosomes and redundant external laminae?

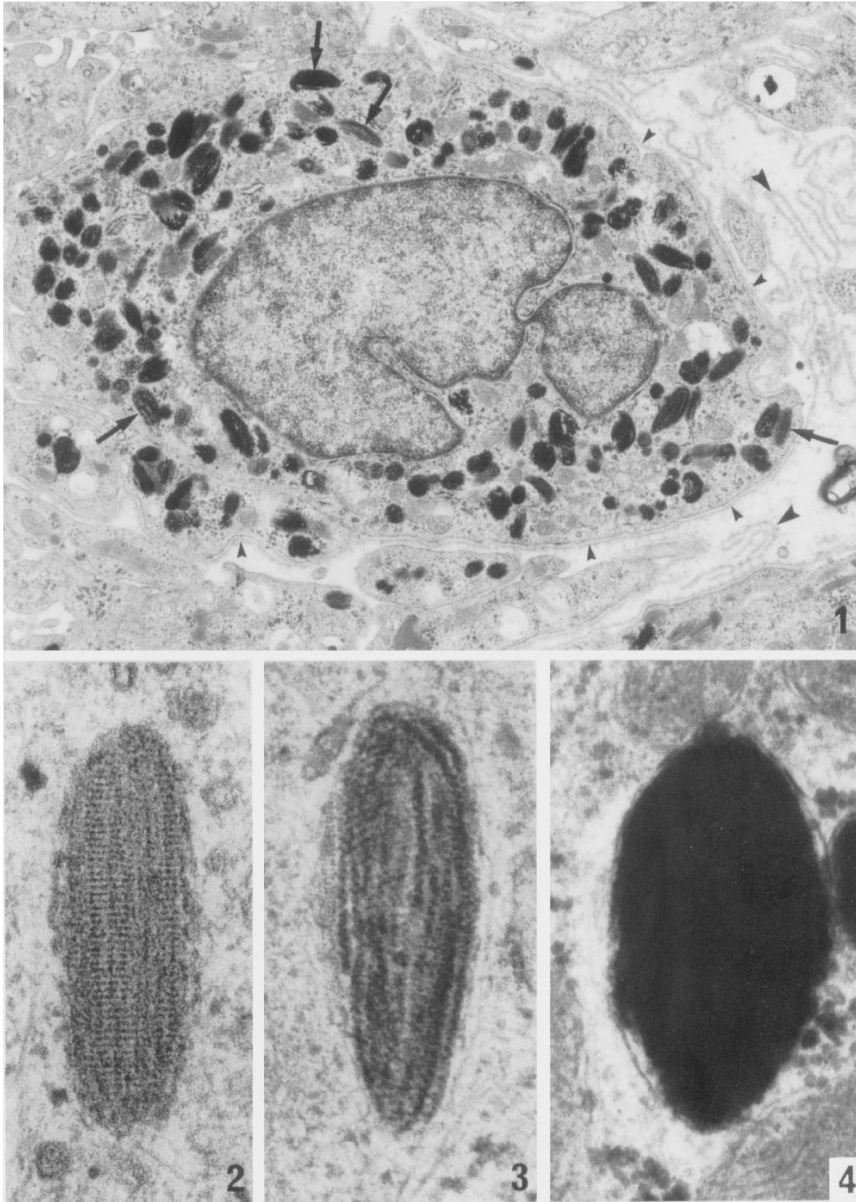


PLATE 9.20

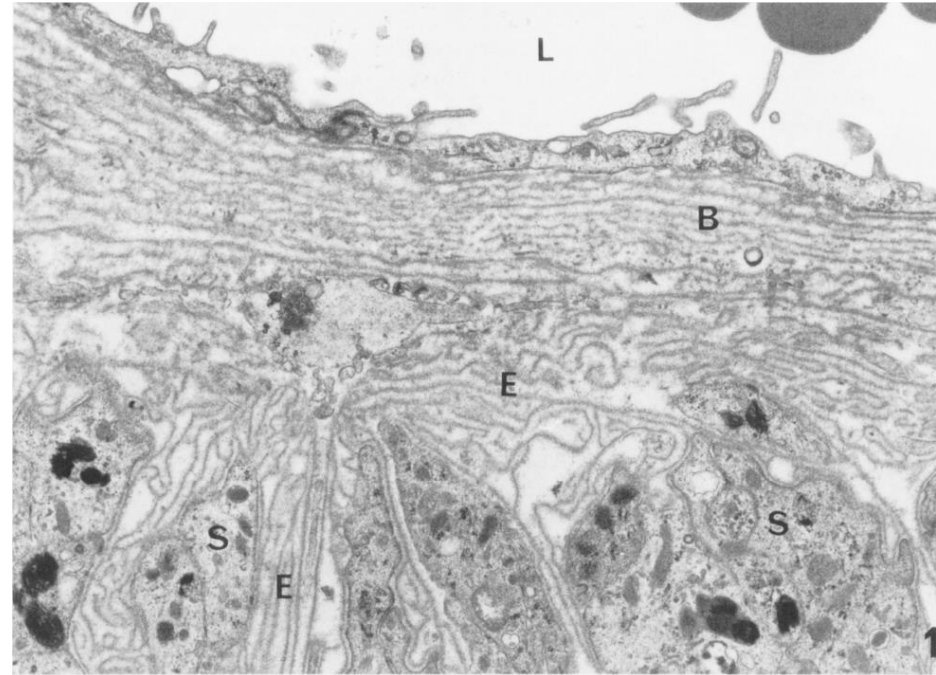


PLATE 9.21 Same tumor as Plate 9.20

Q8. What would you call this nerve sheath tumour which has prominent melanosomes and redundant external laminae?

A8. See legends for Plates 9.20 and 9.21 and description on page 480

Q9

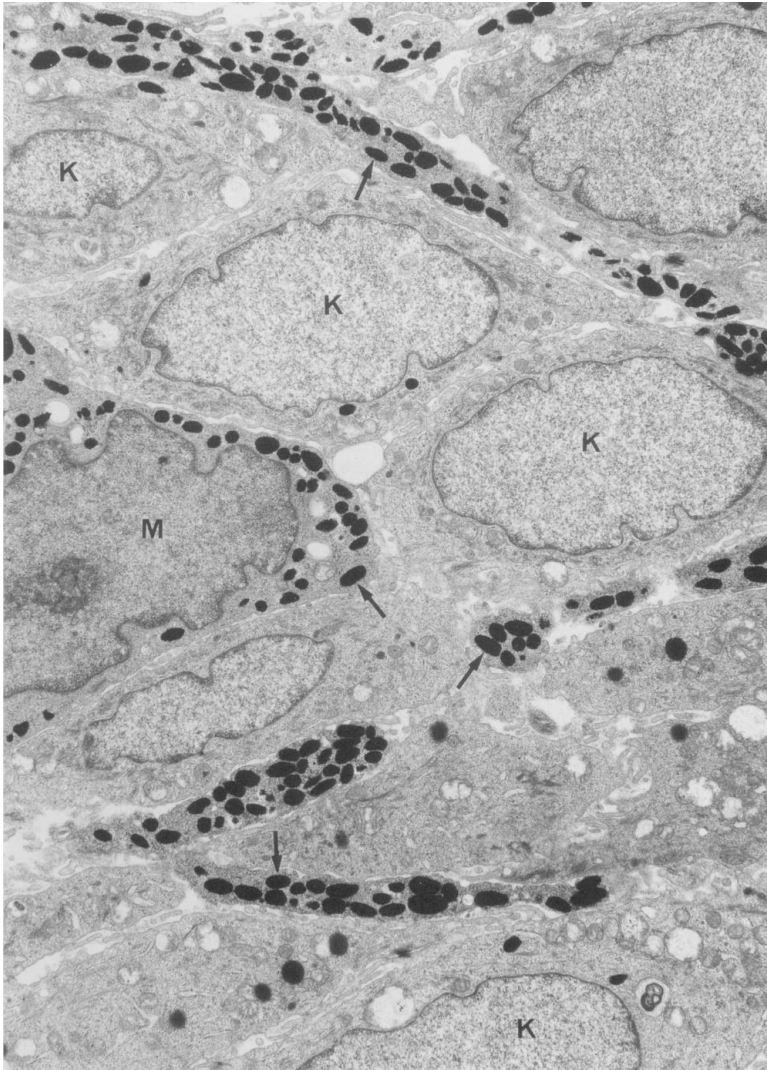


PLATE 9.24

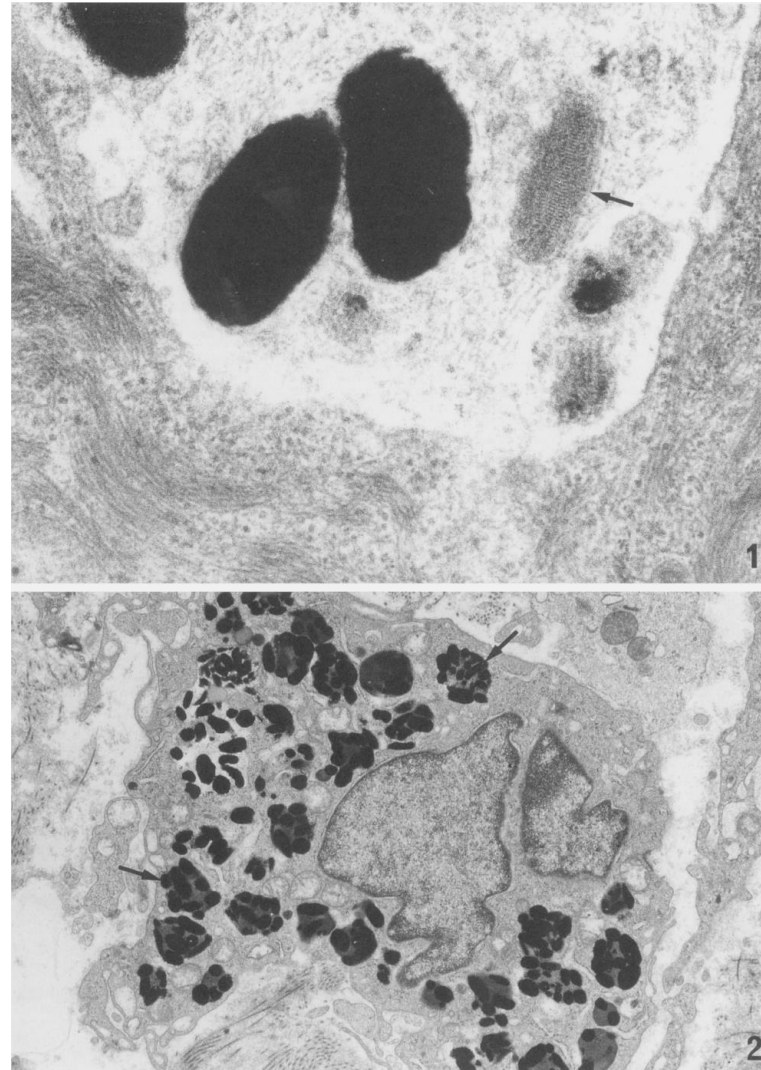


PLATE 9.25 Same case as Plate 9.24

Q9. Melanosis of the GI tract describes the pigmented appearance of a segment of the bowel – which in this case is oesophagus. How should the melanosis be further classified in this case?

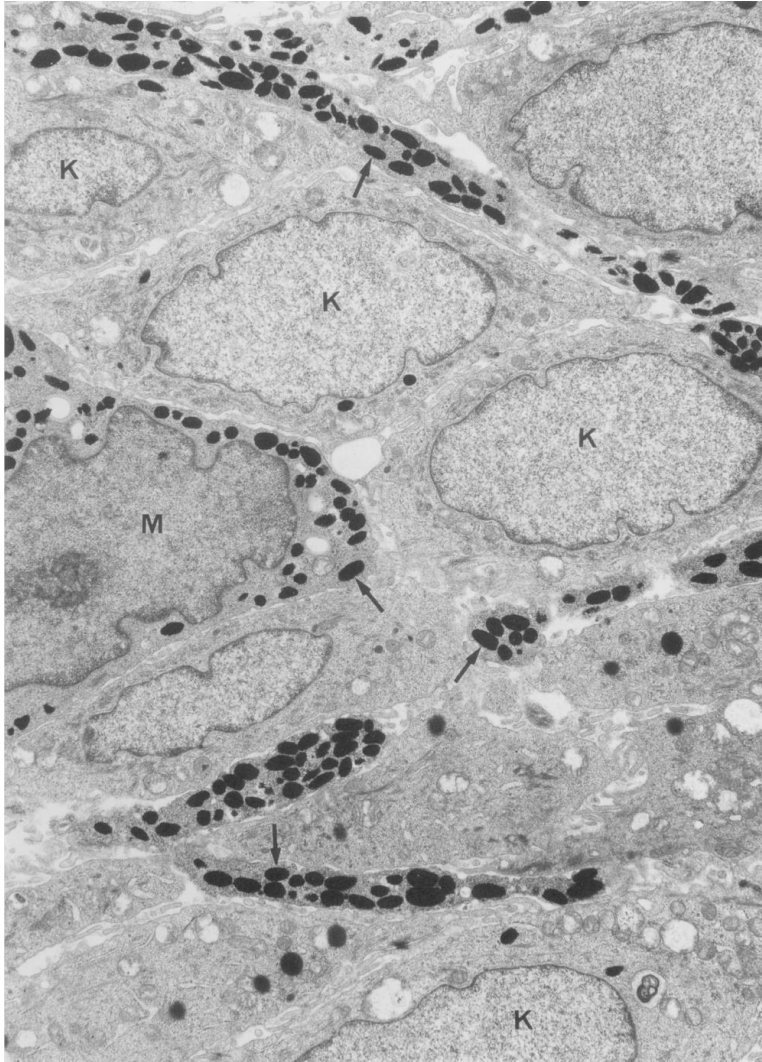


PLATE 9.24

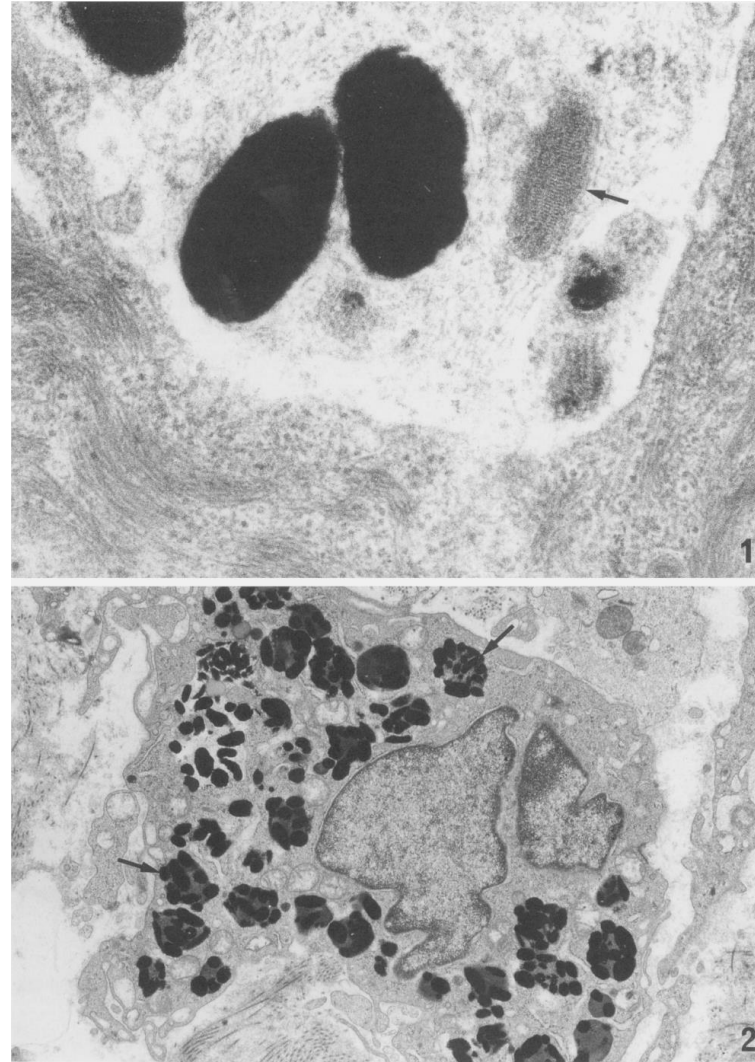


PLATE 9.25

Q9. Melanosis of the GI tract describes the pigmented appearance of a segment of the bowel – which in this case is oesophagus. How should the melanosis be further classified in this case?

A9. See legends for Plates 9.24 & 9.25 on page 484 and discussion on pages 483 & 484

Q10

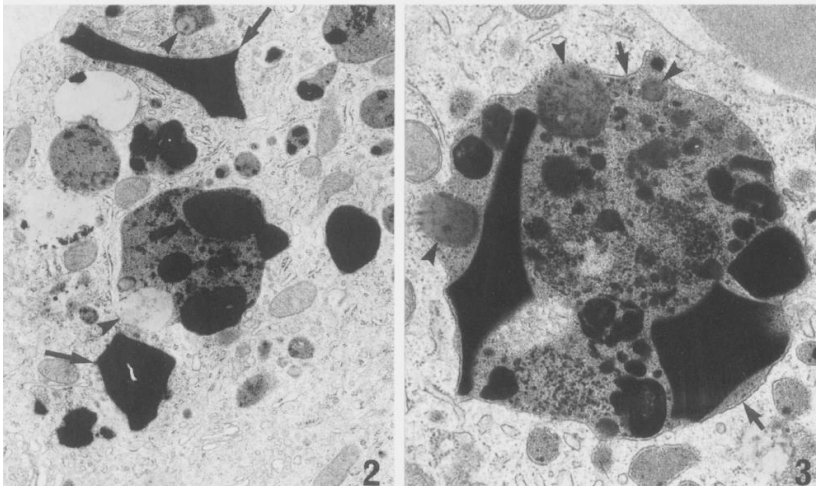
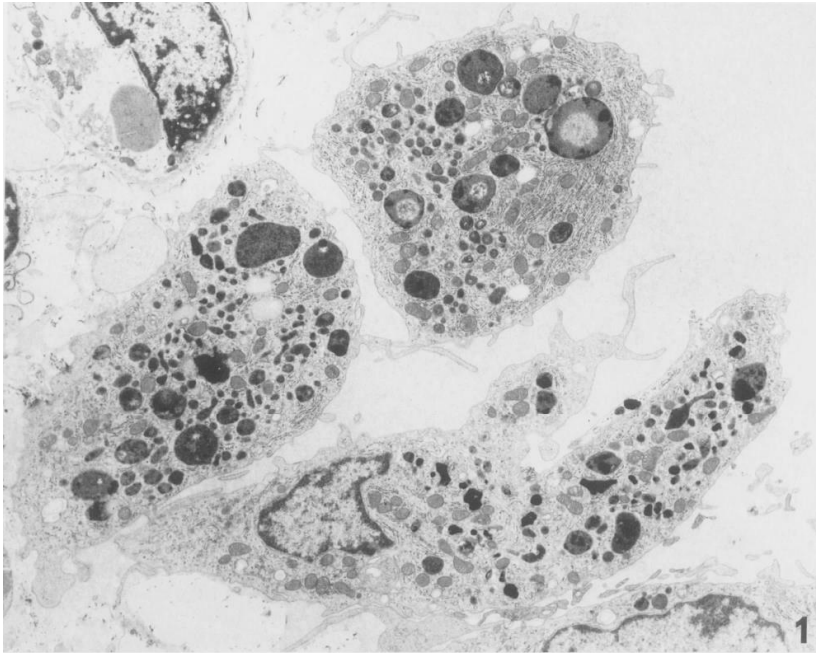


PLATE 7.49 Macrophages in the core of a villus.
Melanosis duodeni case report.

Q10. Melanosis of the GI tract describes the pigmented appearance of a segment of the bowel – which in this case is duodenum. How should the melanosis be further classified in this case?

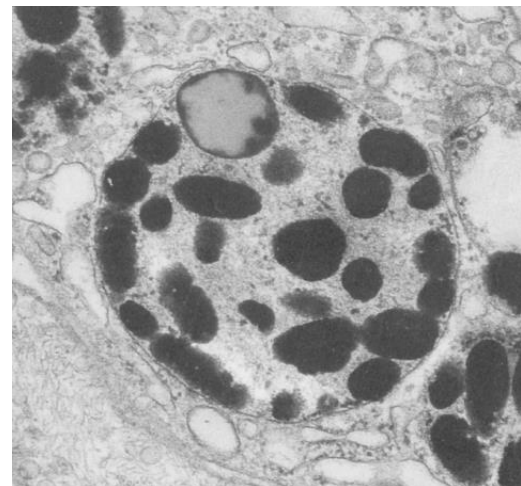


PLATE 9.5 figure 2 Dermal macrophage
compound melanosome (for comparison)

Q10

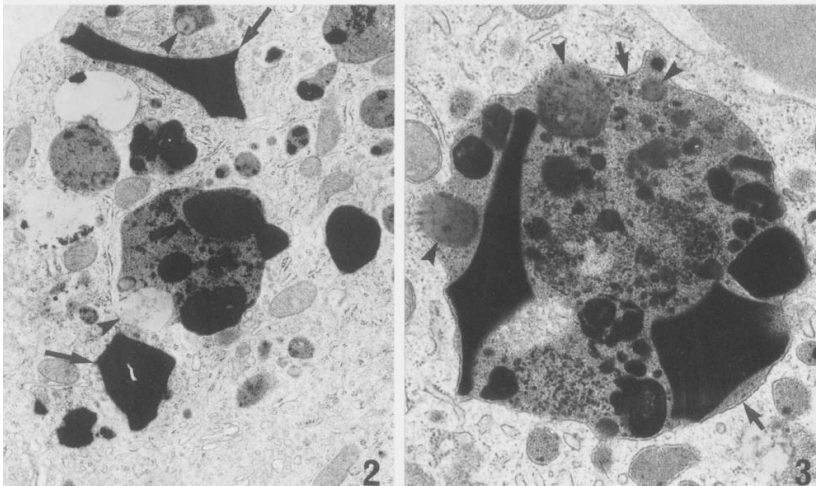
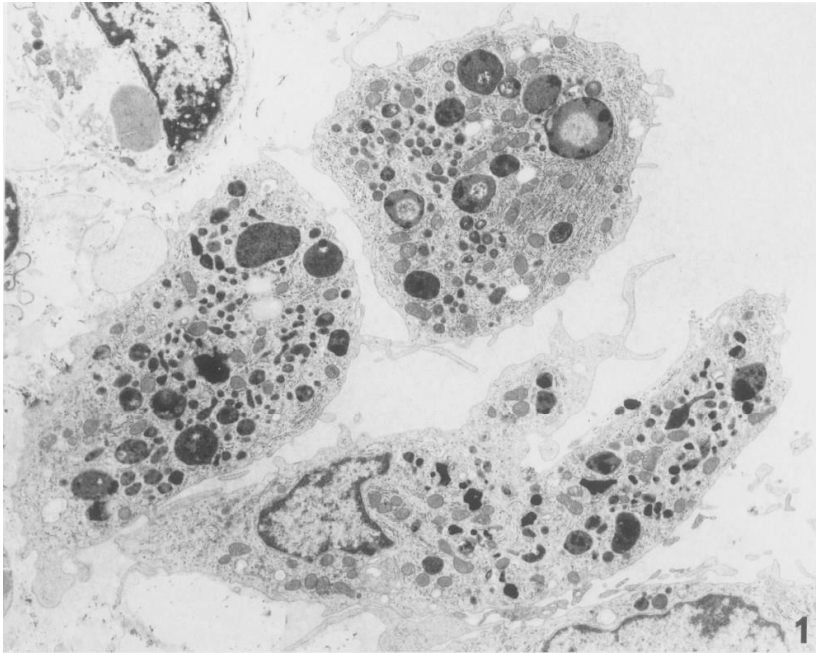


PLATE 7.49 Macrophages in the core of a villus.
Melanosis duodeni case report.

Q10. Melanosis of the GI tract describes the pigmented appearance of a segment of the bowel – which in this case is duodenum. How should the melanosis be further classified in this case?

A10. See legend for Plate 7.49 on page 401 and discussion on page 483 & 484

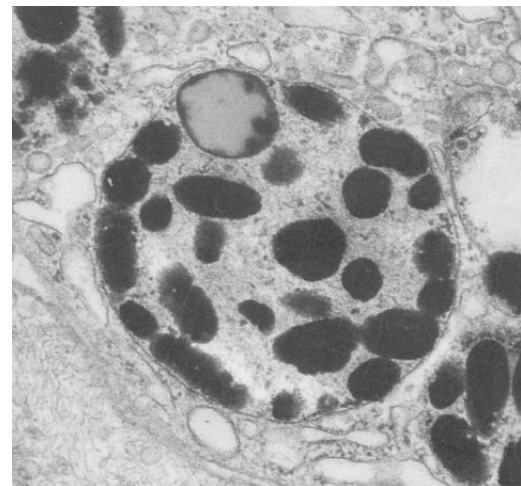


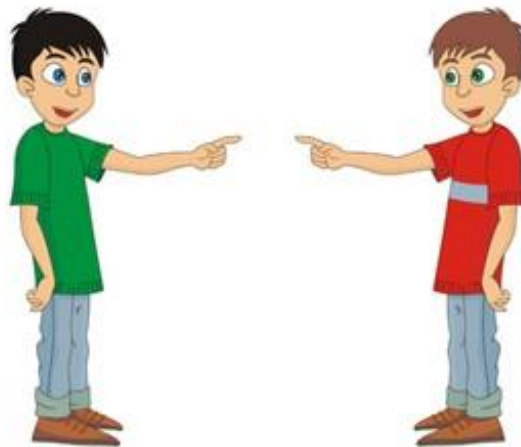
PLATE 9.5 figure 2 Dermal macrophage
compound melanosome (for comparison)

Any questions?

Ask him.



Josef
Schroeder



Bart
Wagner