



# Inflamação Granulomatosa

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Faculdade de Odontologia de Bauru – Curso de Medicina

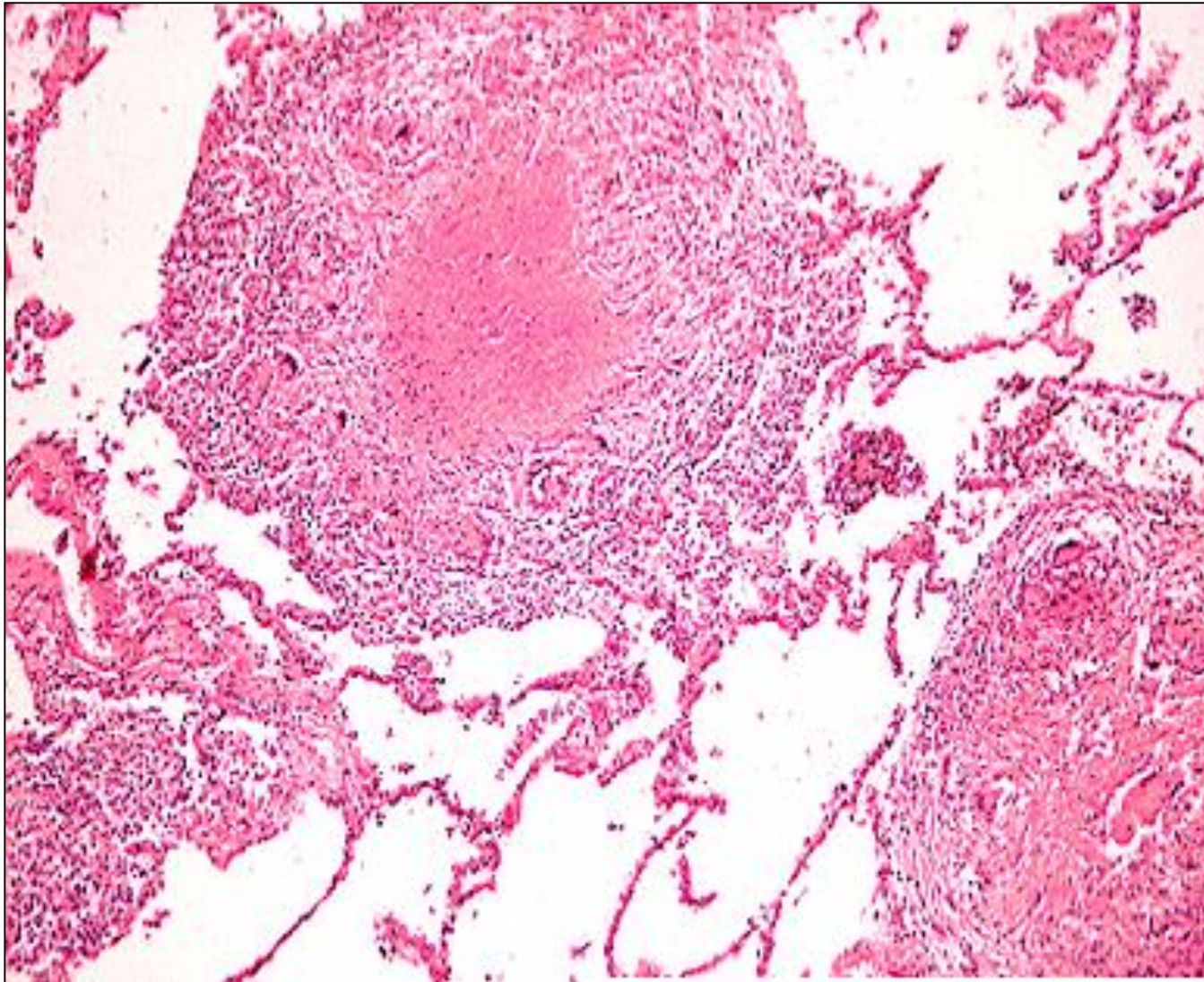


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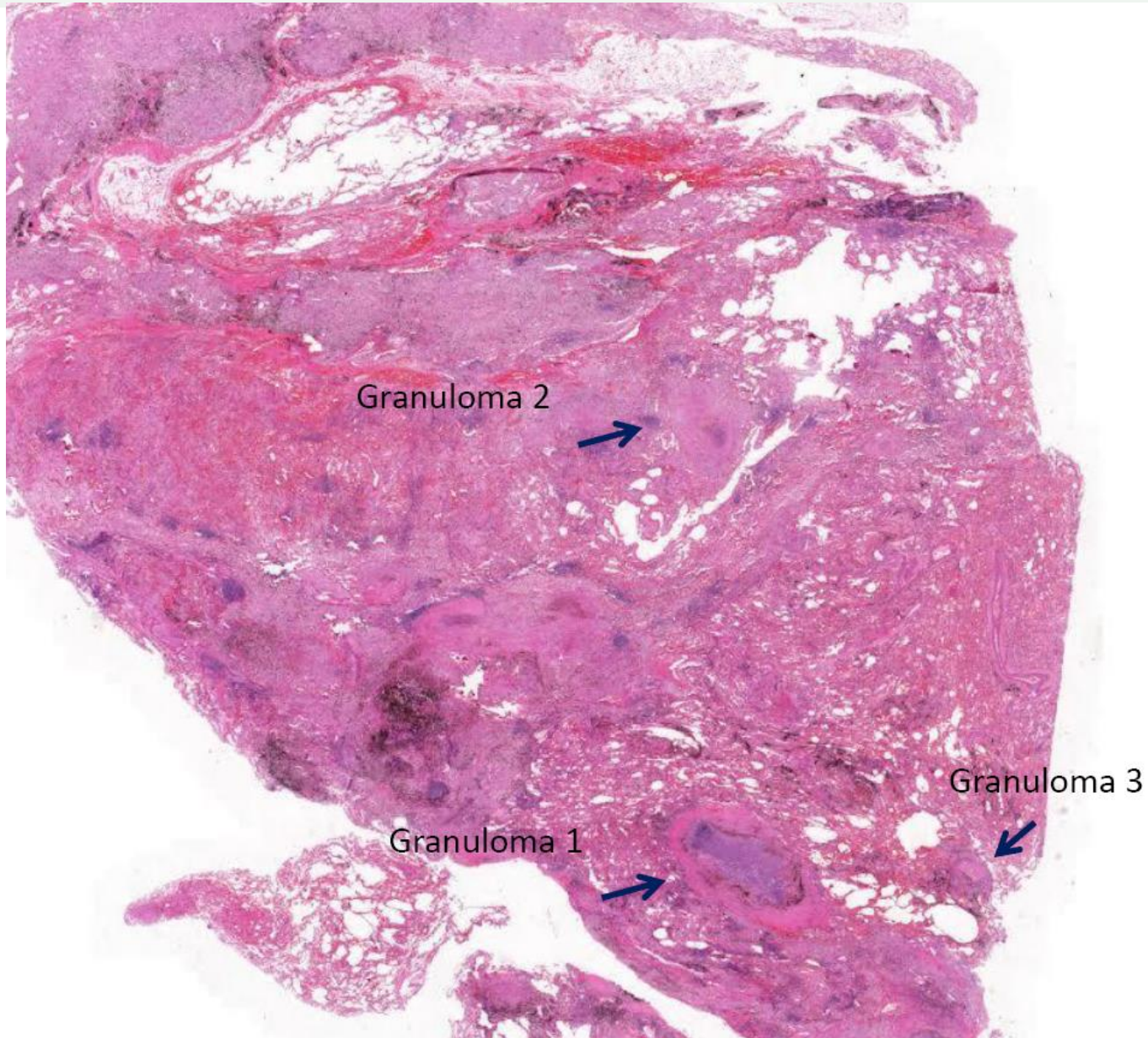
# O que saber sobre as doenças granulomatosas?

- Definições gerais
- Etiologias
- Mecanismos de formação dos granulomas
- Apresentações clínicas gerais

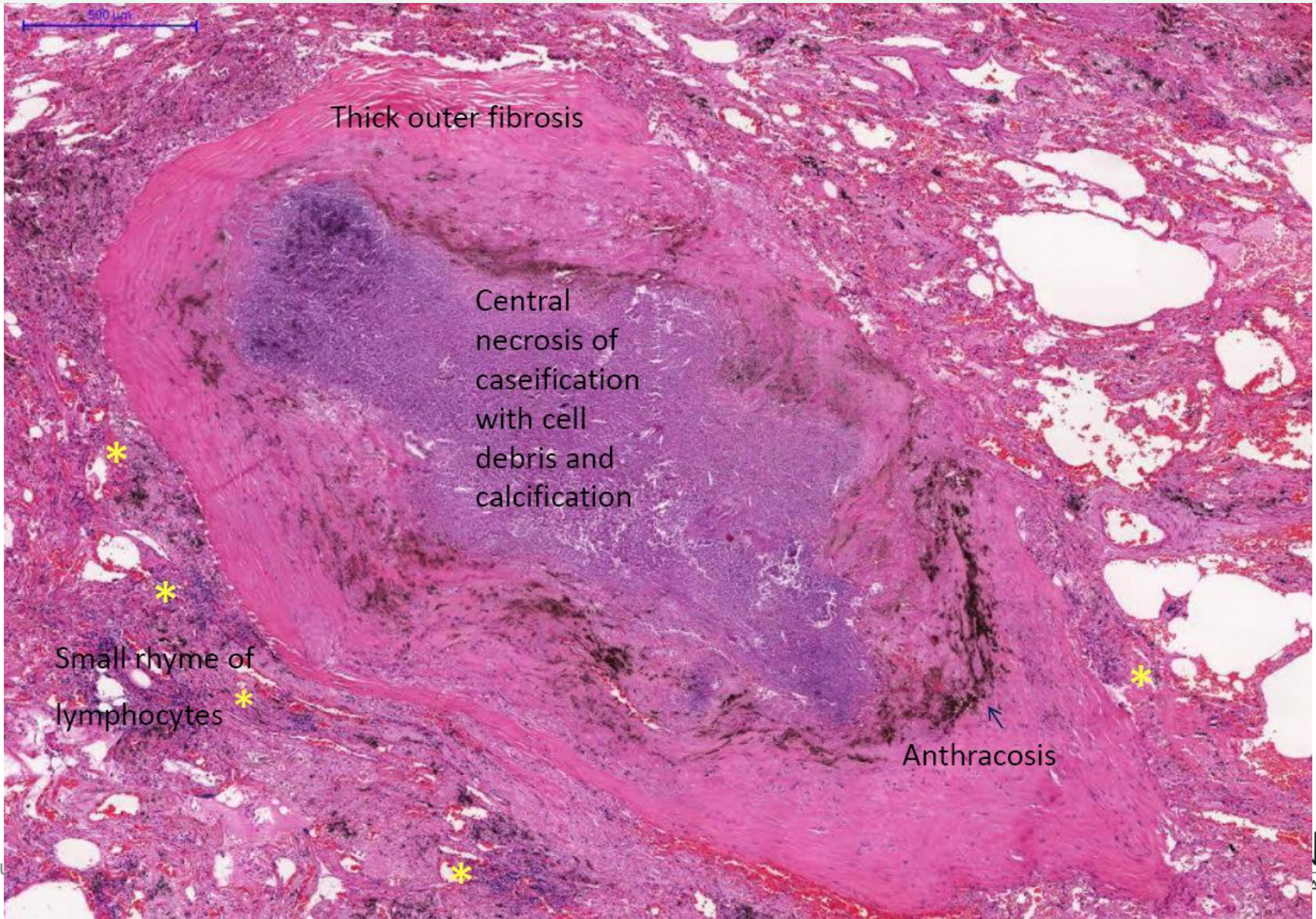
# Por que formar granuloma?



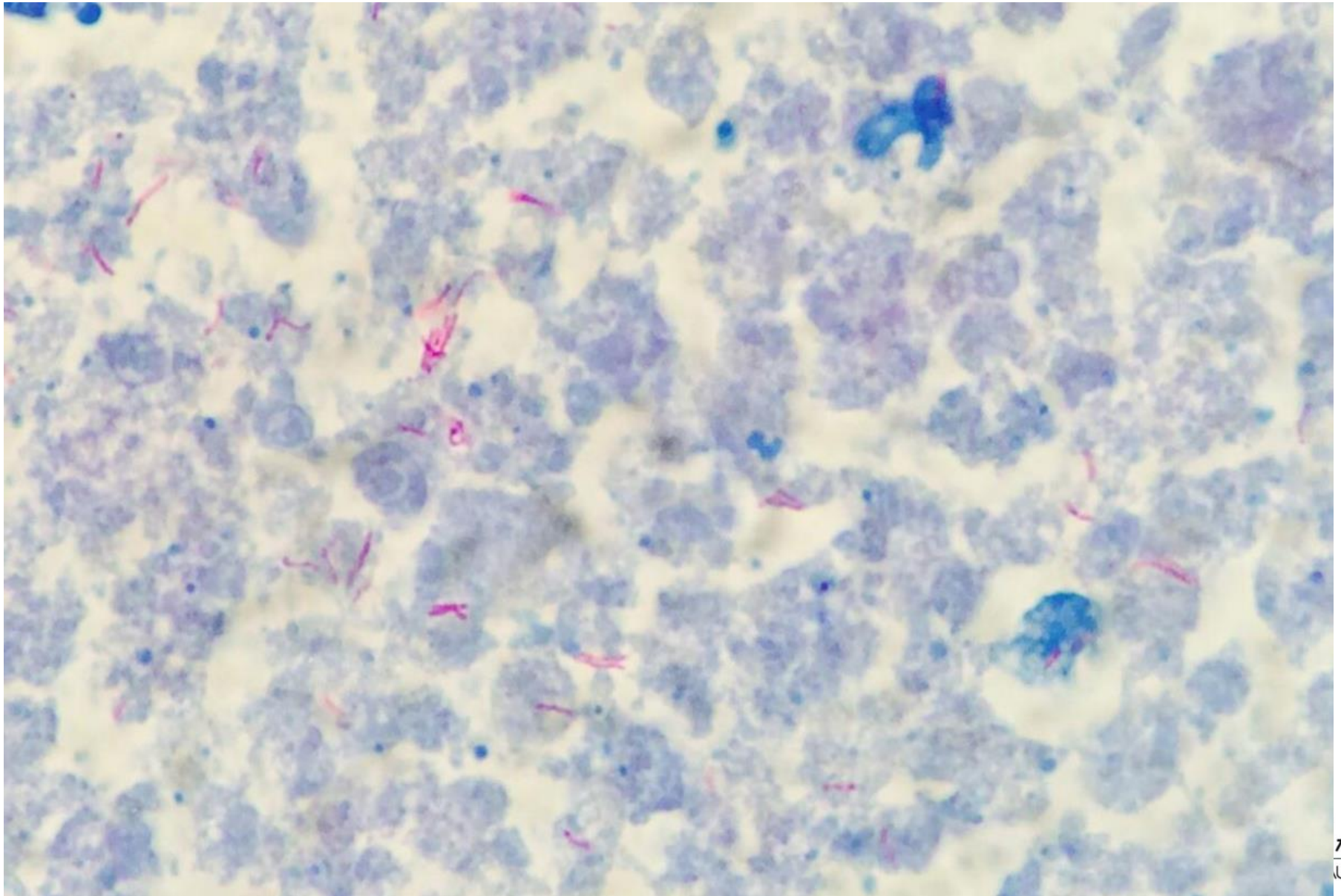
# Por que formar granuloma?



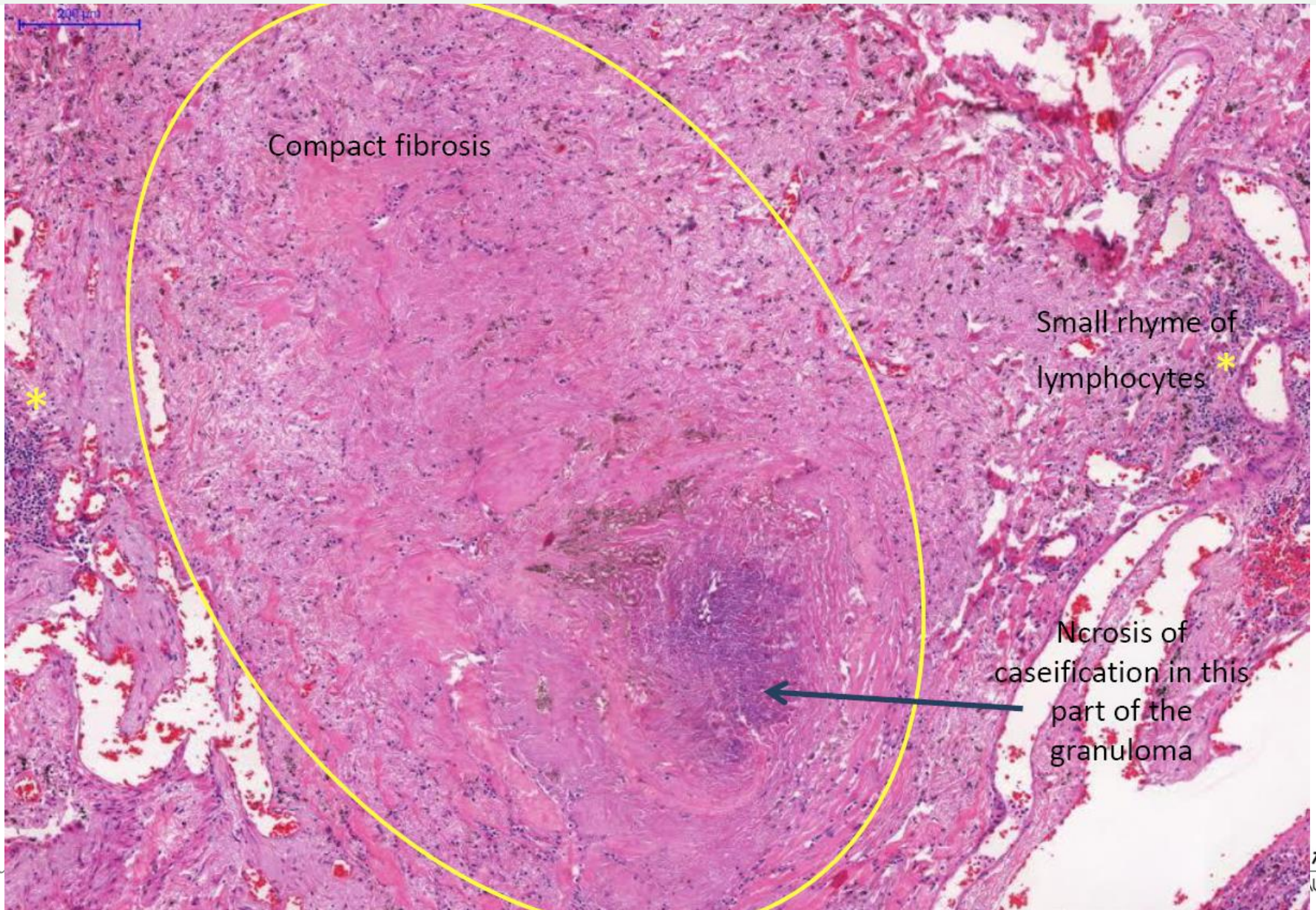
# Por que formar granuloma?



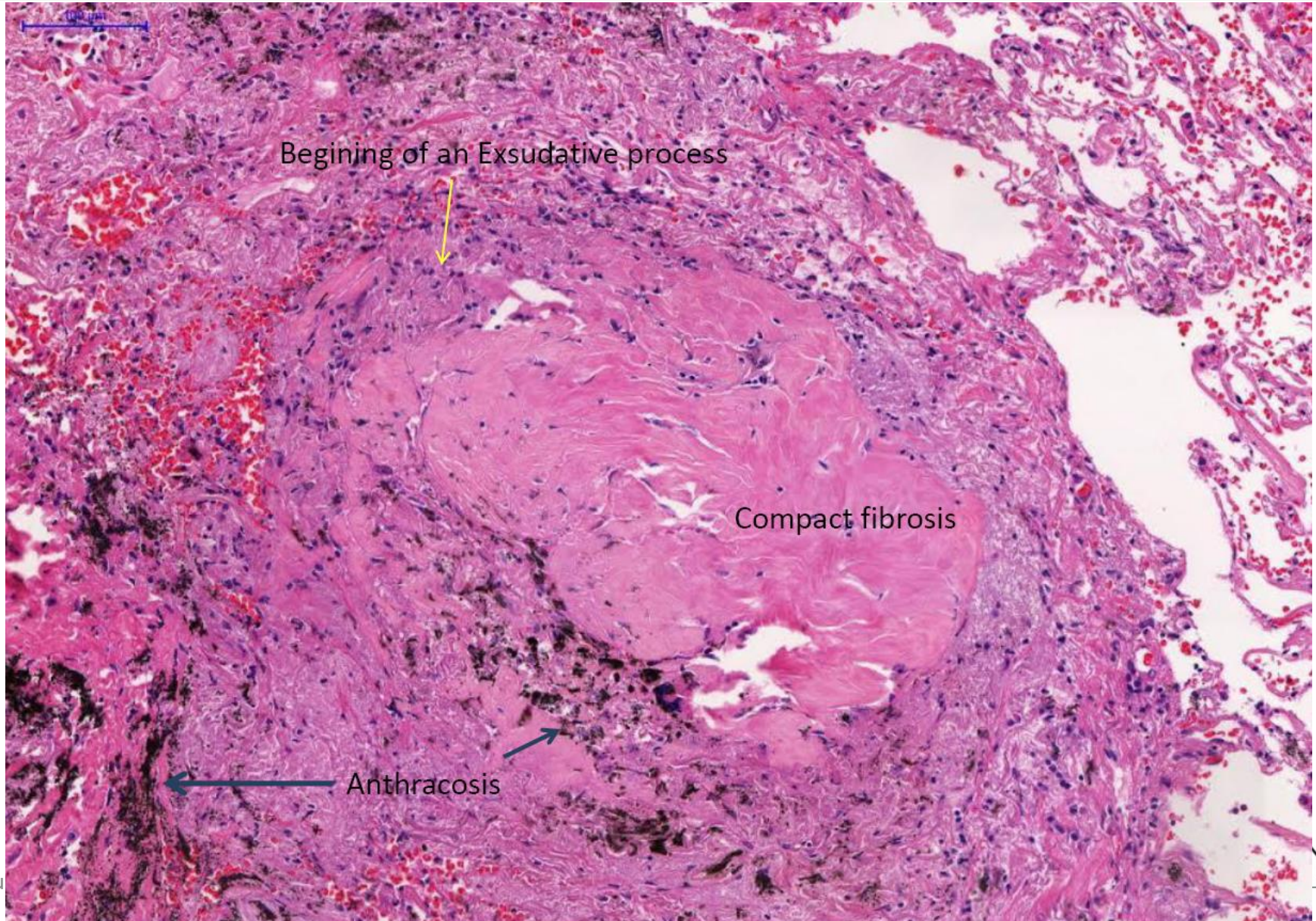
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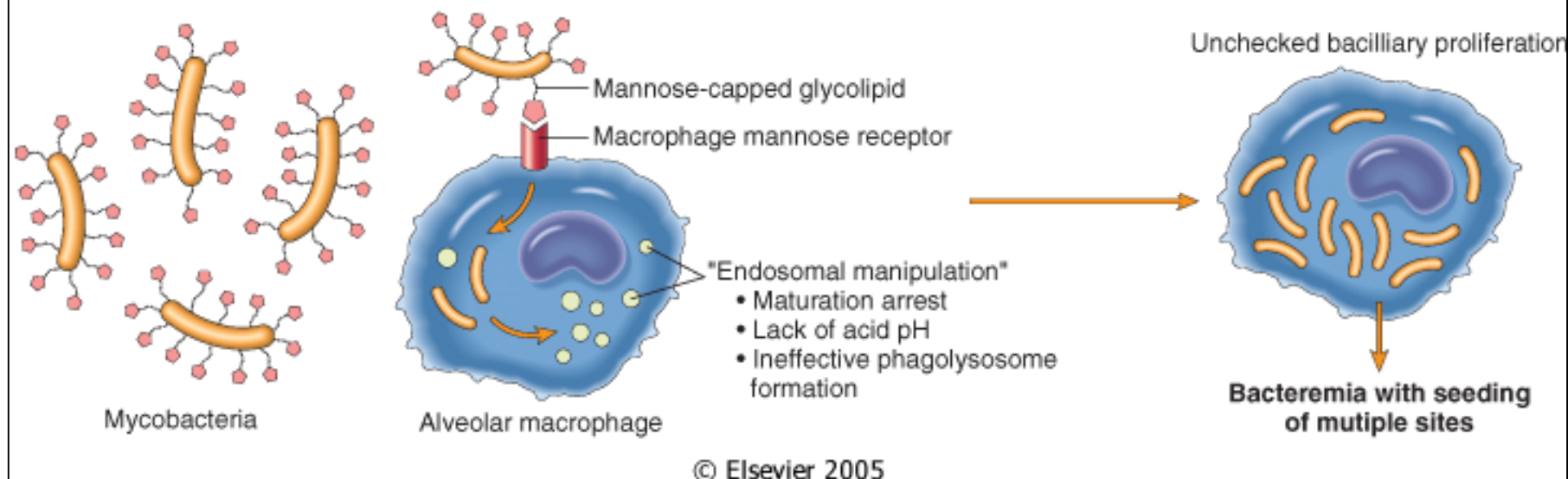


# Que tipos de doenças causam granuloma?

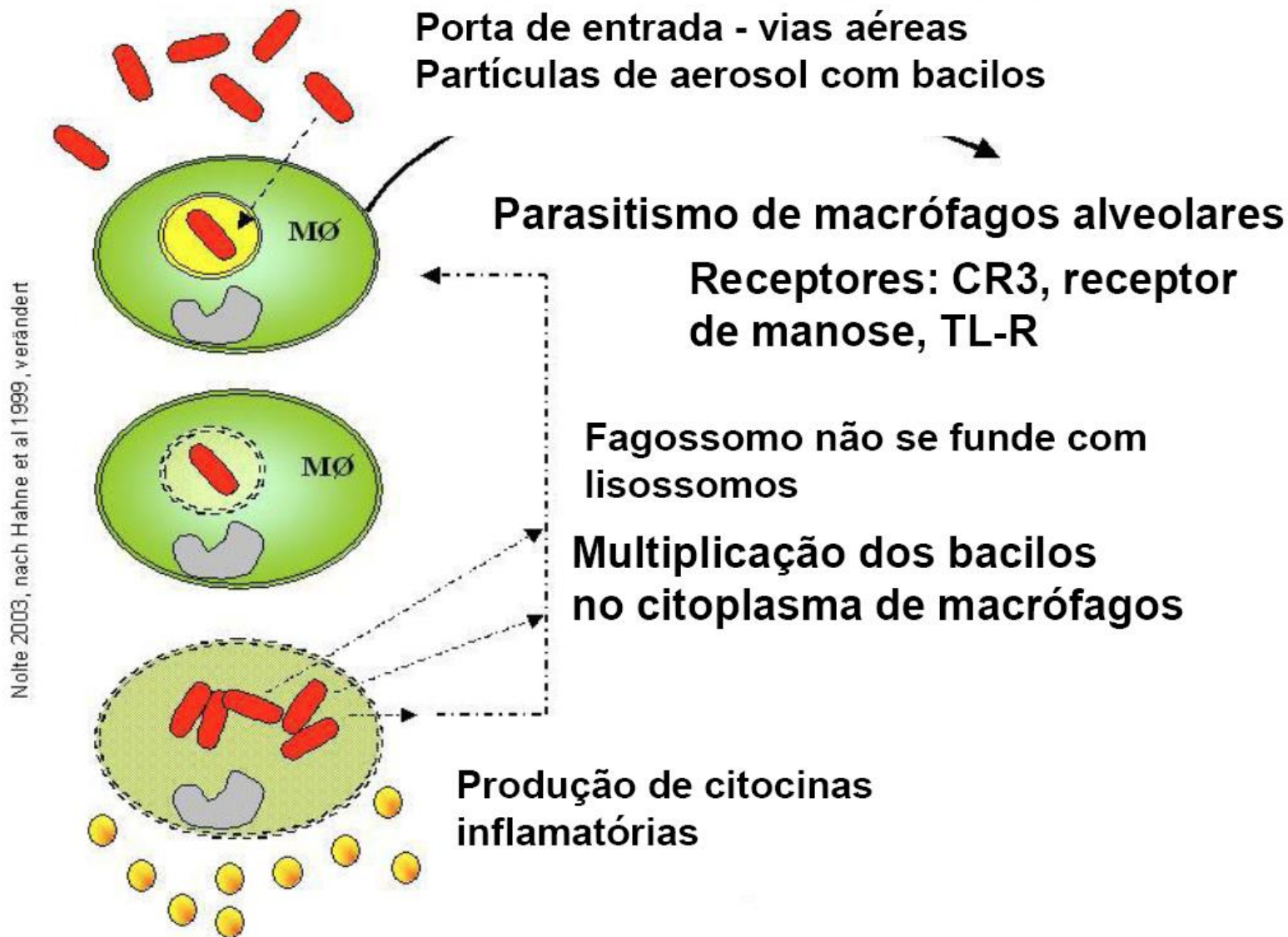
- Infecção – Tuberculose, Paracoccidioidomicose, Histoplasmose
- Corpo estranho – Silicose
- Sarcoidose, Granulomatose de Wegner

# Mecanismos

## A. PRIMARY PULMONARY TUBERCULOSIS (0-3 weeks)



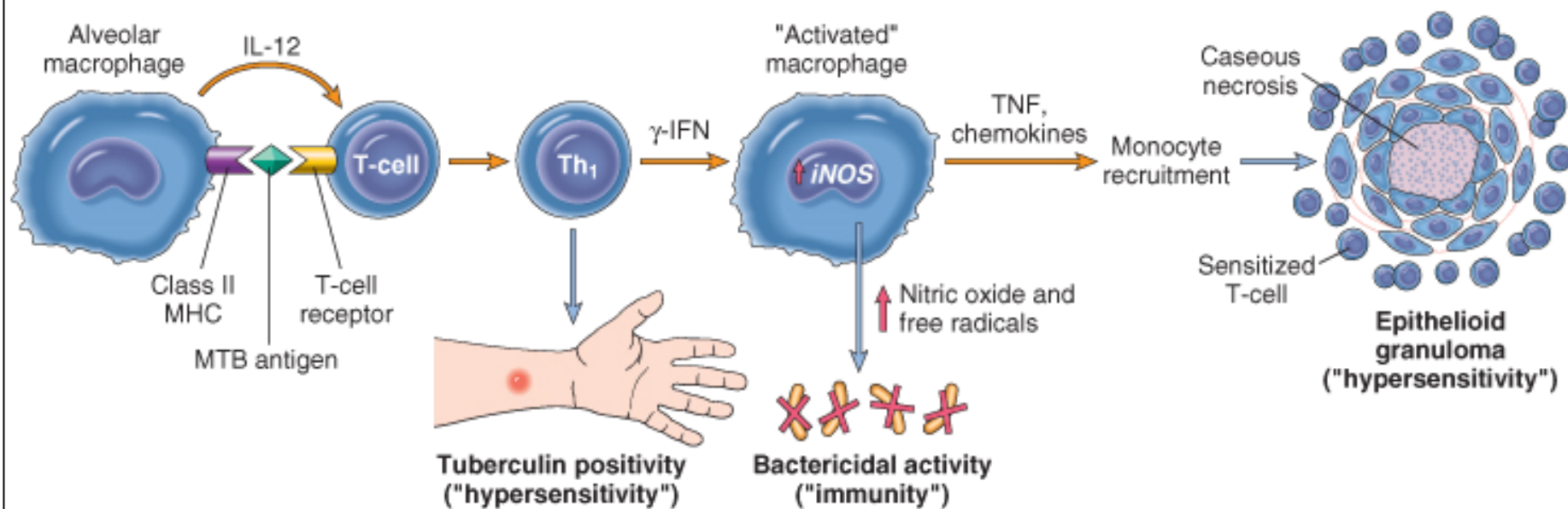
# Mecanismos





# Mecanismos

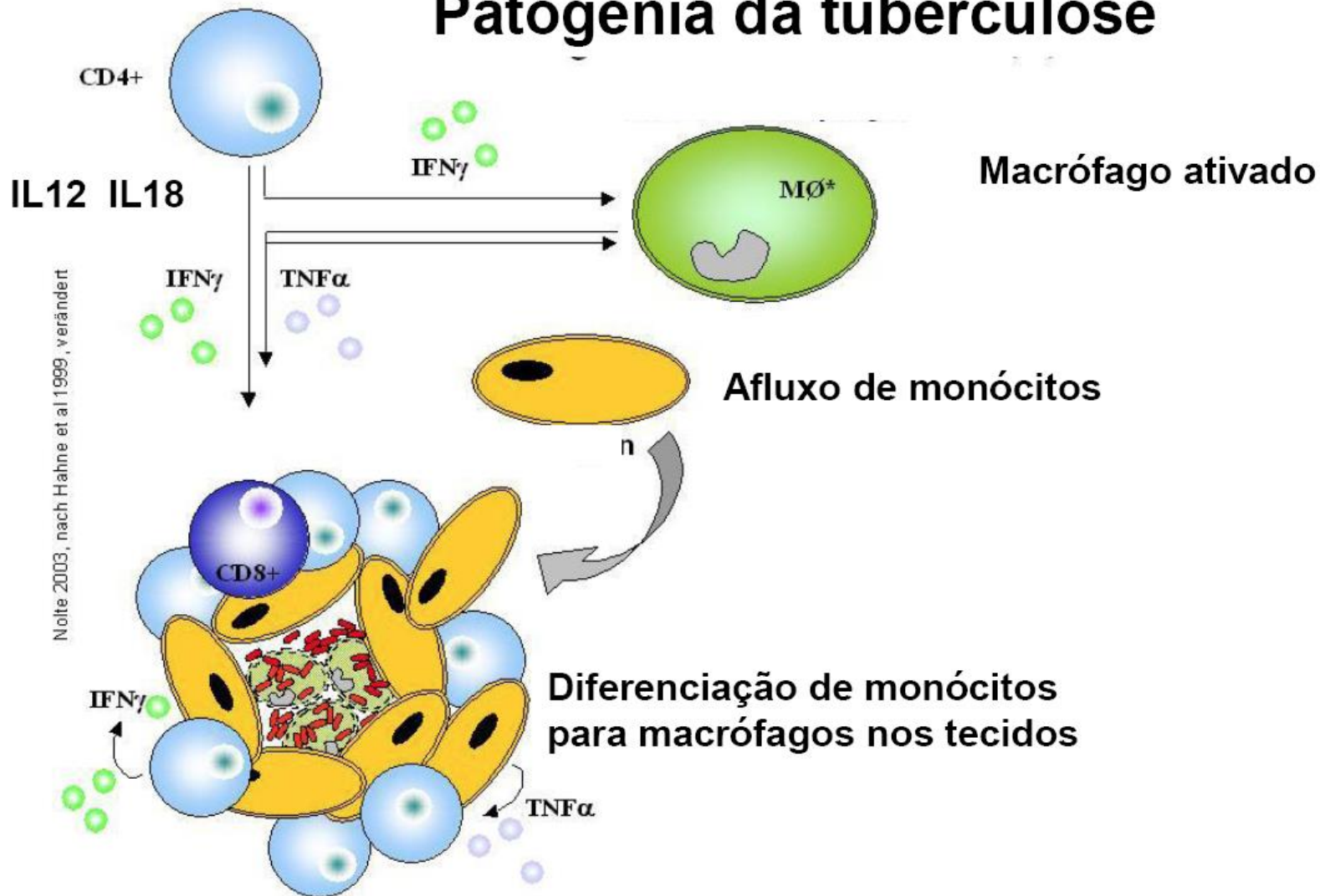
## B. PRIMARY PULMONARY TUBERCULOSIS (>3 weeks)



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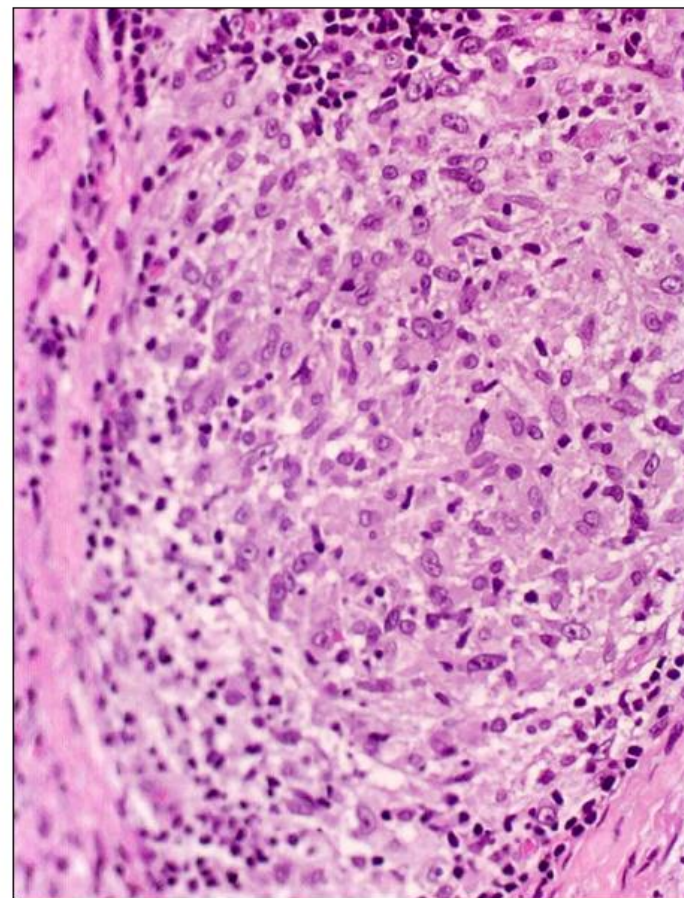
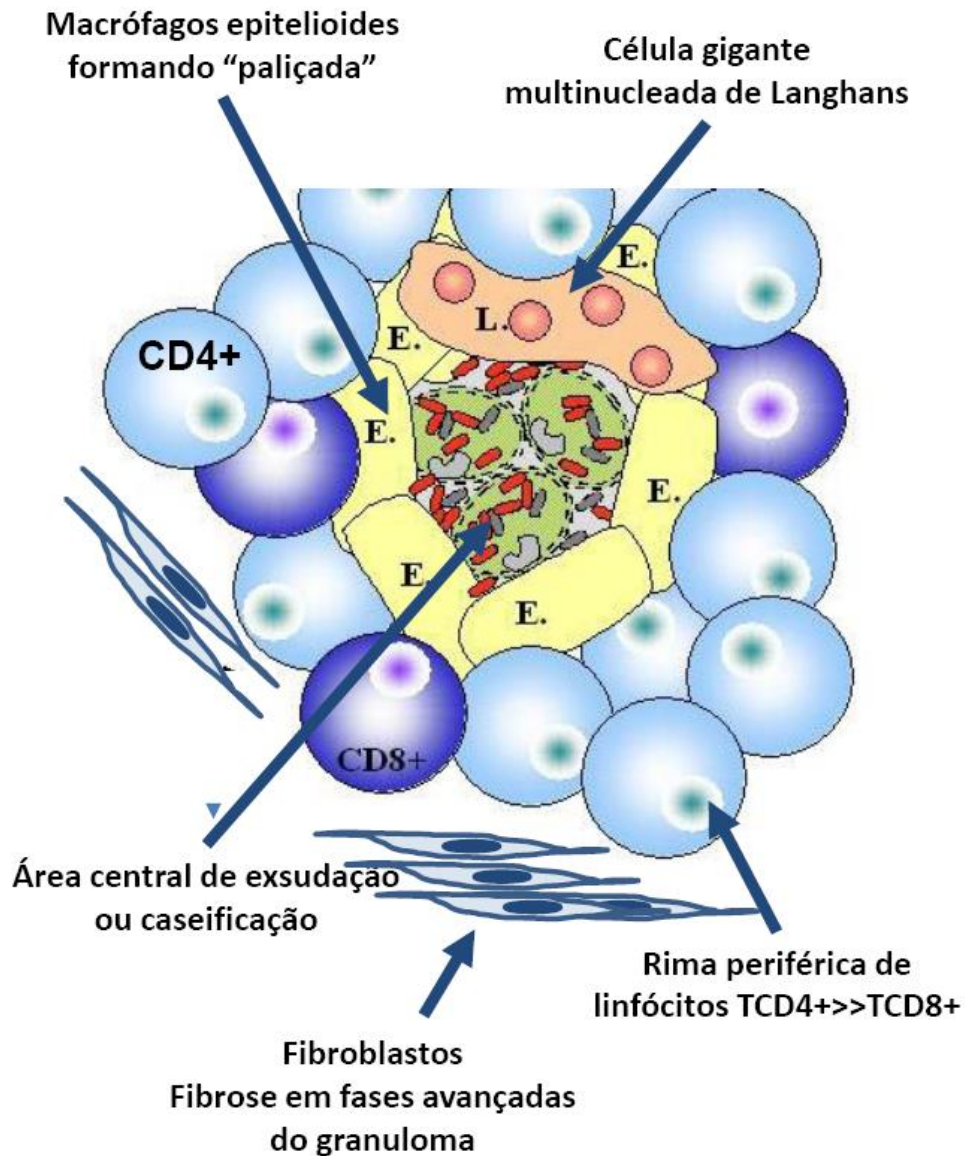
# Como causam?

## Patogenia da tuberculose

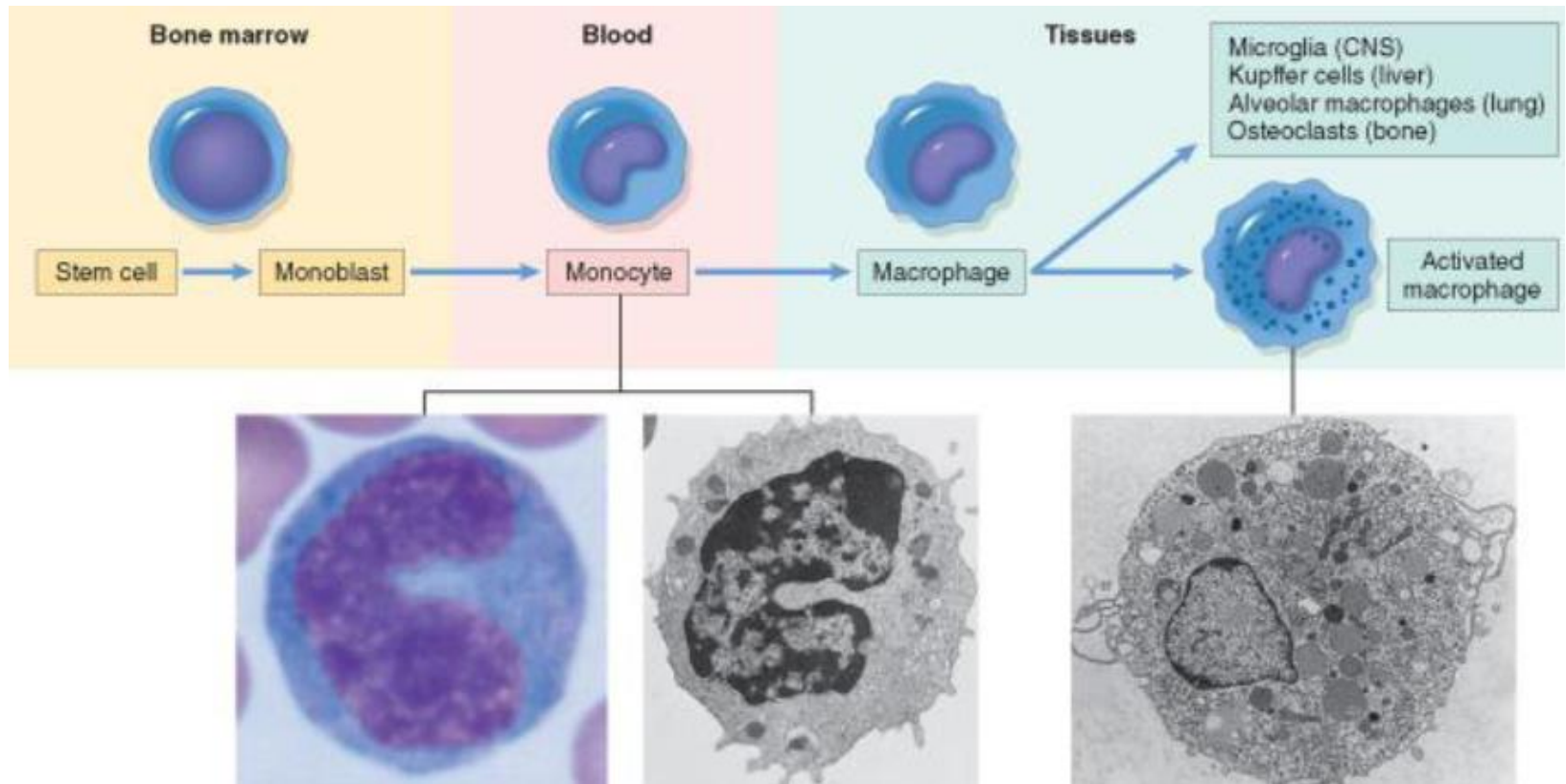


Noite 2003, nach Hahne et al 1999, verändert

# Como causam?



# Mecanismos – Os macrófagos





# Mecanismos – Os macrófagos

- Migram do sangue e se ativam
- A ativação inclui:
  - ↑ Tamanho
  - ↑ Enzimas lisossomais
  - ↑ Metabolismo
  - ↑ Capacidade de Fagocitose
- Sarcoidose, Granulomatose de Wegner

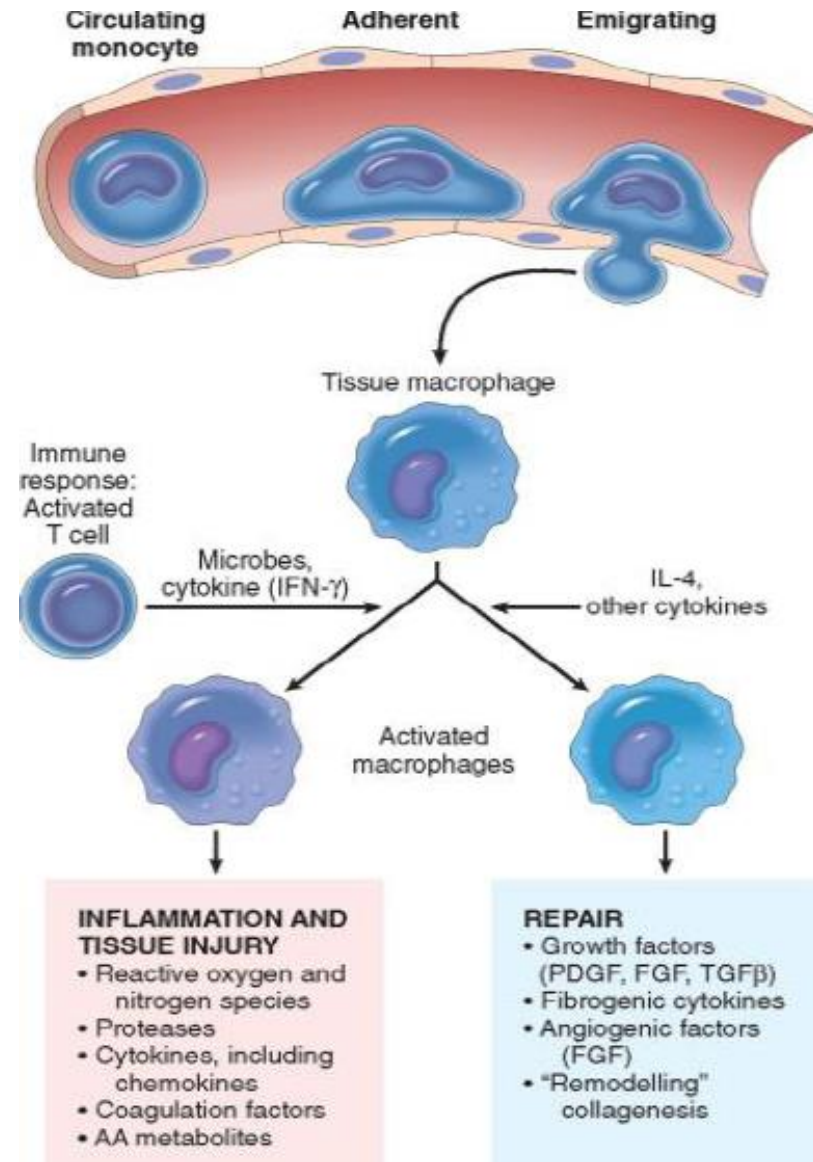
# Mecanismos – Os macrófagos

- **No contexto da formação do granuloma:**

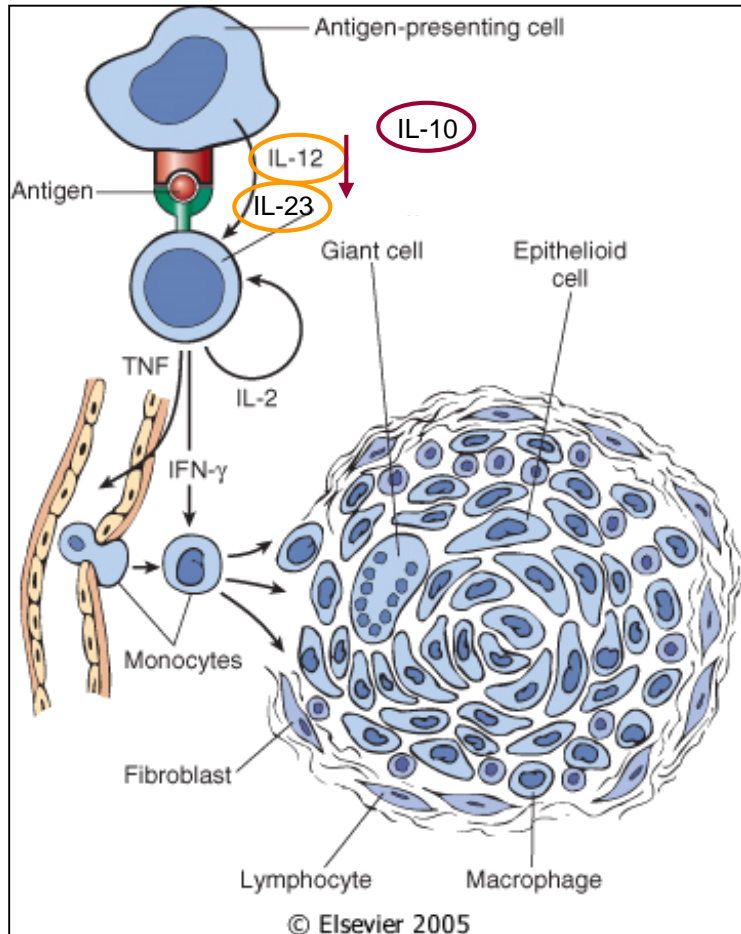
- ↑ Número – recrutamento (C5a, MCP-1, TGFbeta, etc)
- Proliferação local
- Imobilização (MIF)

- **Substâncias secretadas**

- Elastases e collagenases
- Fat. Complemento e coagulação
- Espécies reativas de oxigênio
- Citocinas e quimiocinas
- Fatores de Crescimento

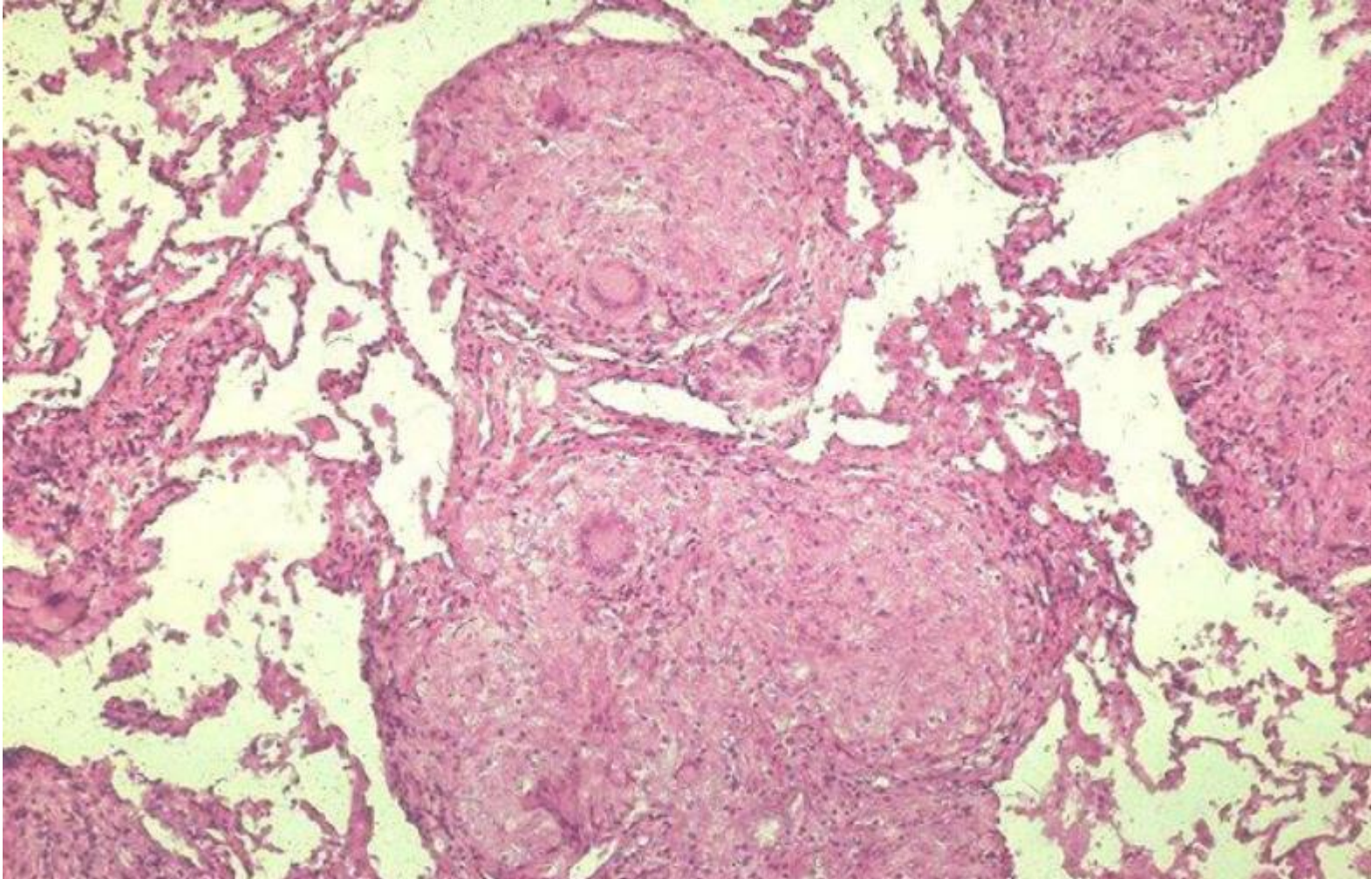


# Mecanismos

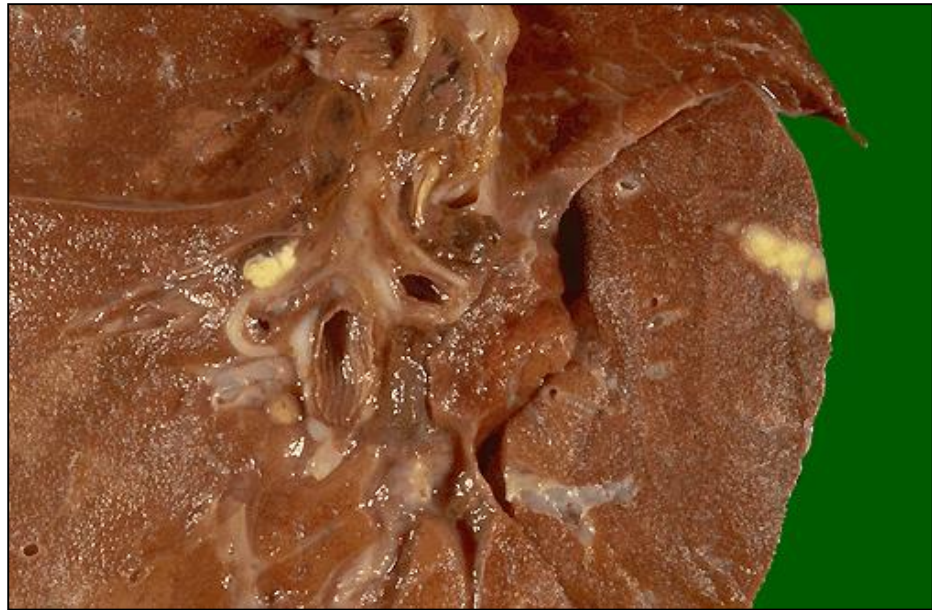


- **IFN- $\gamma$**  – ativação de macrófagos
  - formação de fagolisossomos
  - produção de iNOS – NO
  - $\uparrow$  produção IL-12
  - $\uparrow$  capacidade apresentação de Ag
  - $\uparrow$  capacidade fagocítica
  - $\uparrow$  secreção fatores de crescimento (PDGF, TGF- $\beta$ )
    - proliferação de fibroblastos
    - síntese de colágeno
  - produção TNF $\alpha$  - recrutamento de monócitos
    - células epitelióides

# Mecanismos



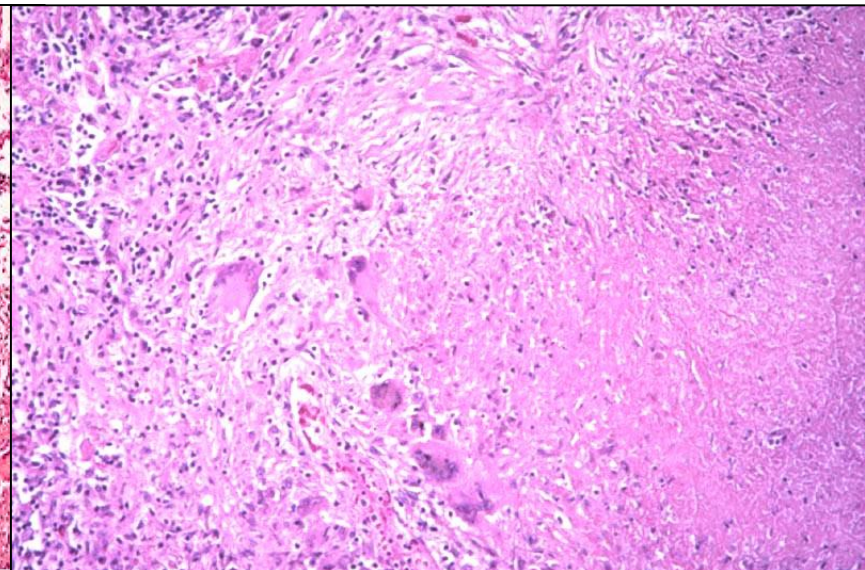
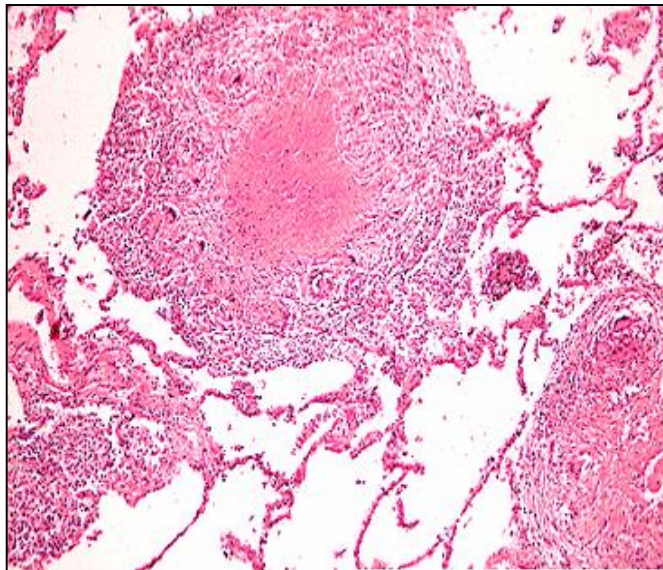
# Apresentações Clínicas



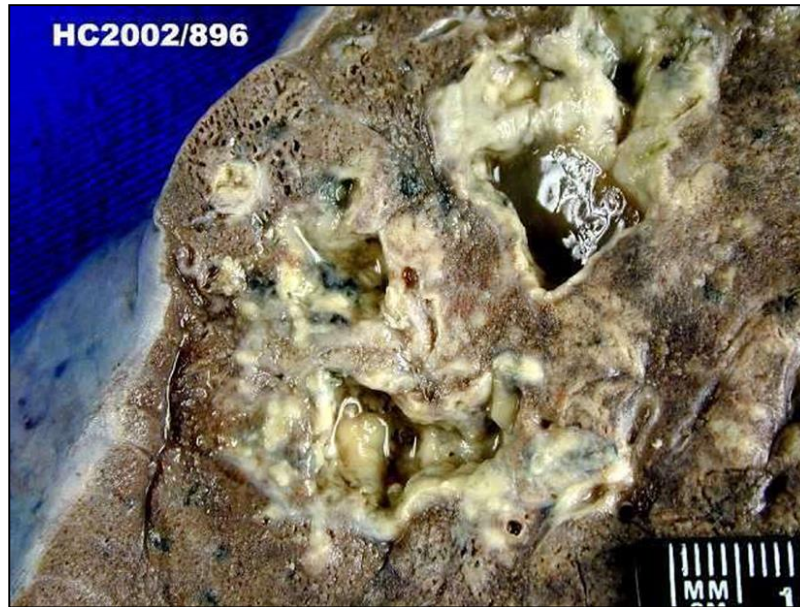
- Tuberculose
  - Primária
  - Secundária
  - Miliar

- Silicose

- Sarcoidose



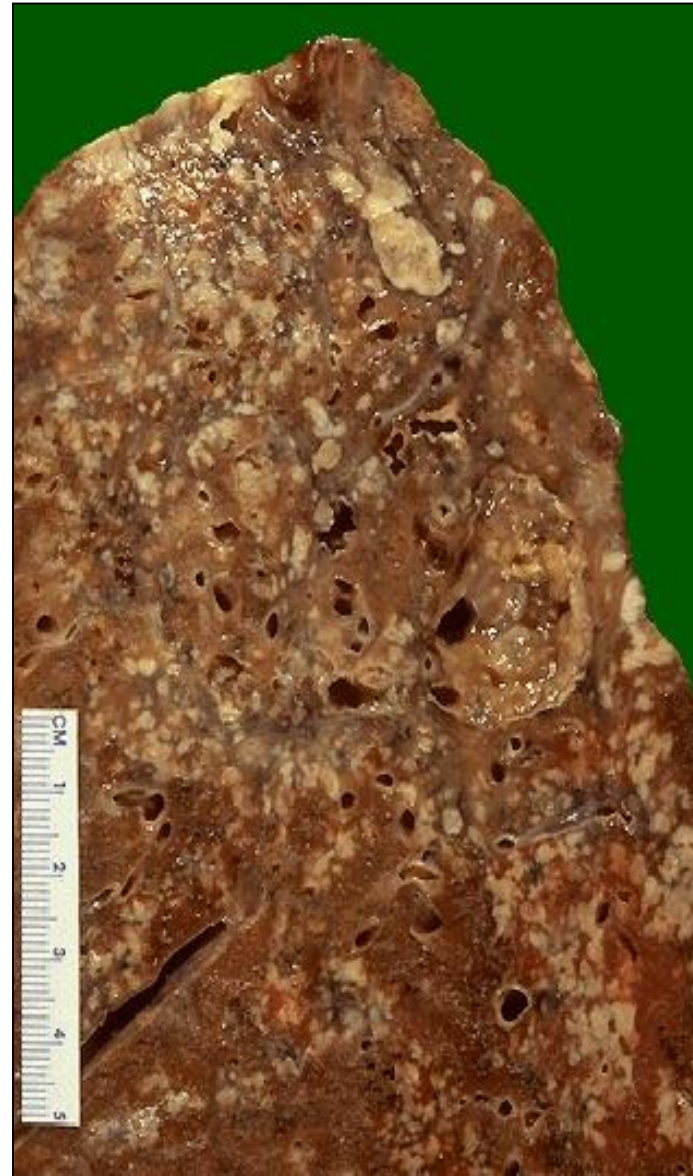
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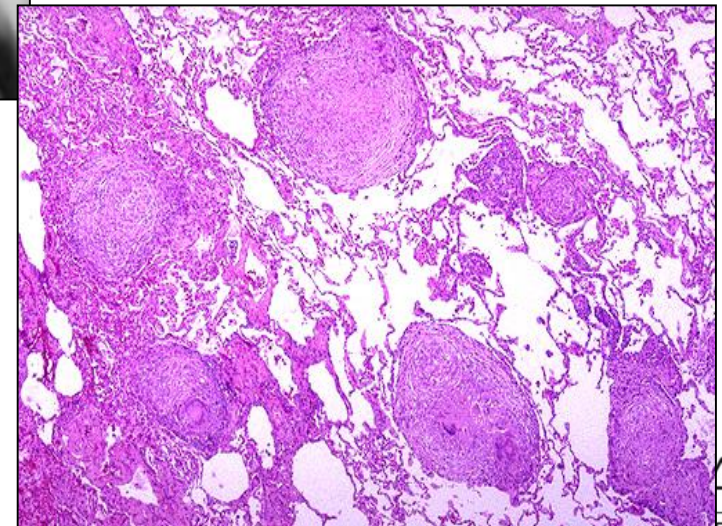
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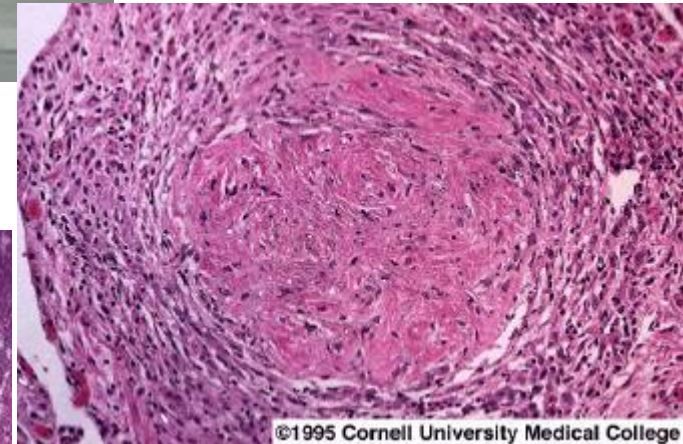
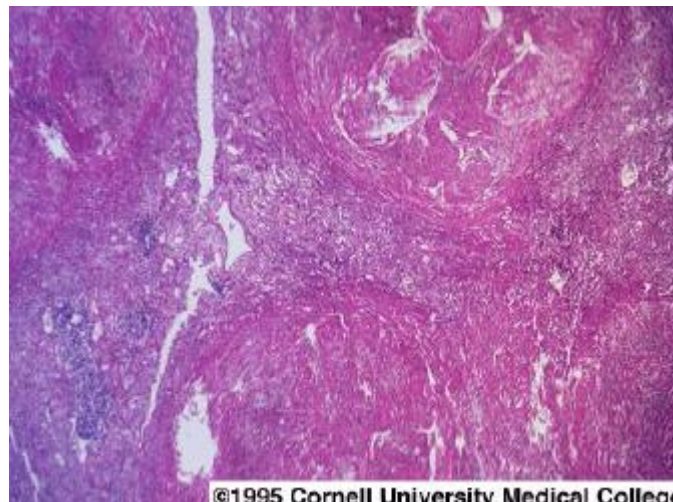
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  - Miliar



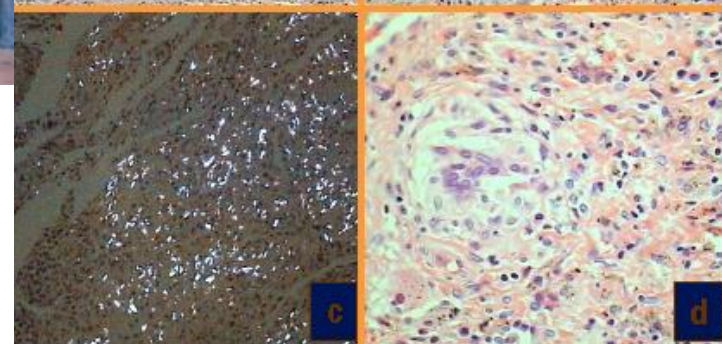
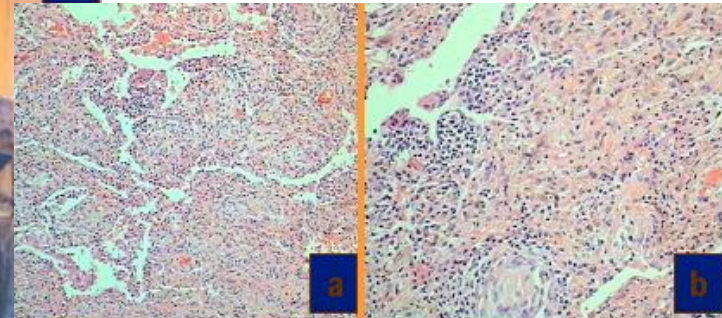
- Silicose

- Sarcoidose



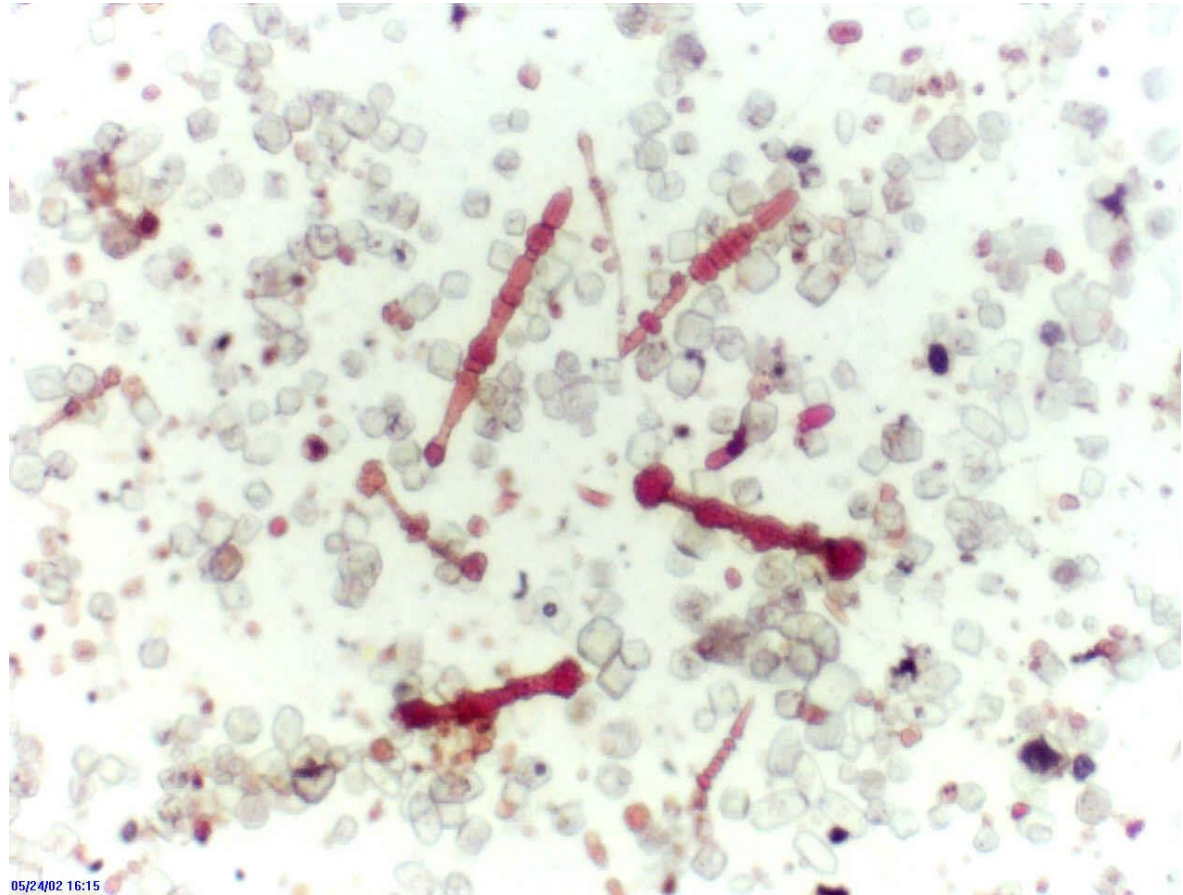
# Apresentações Clínicas

- Tuberculose
  - Primária
  - Secundária
  - Miliar
- Sericita
- Sarcoidose



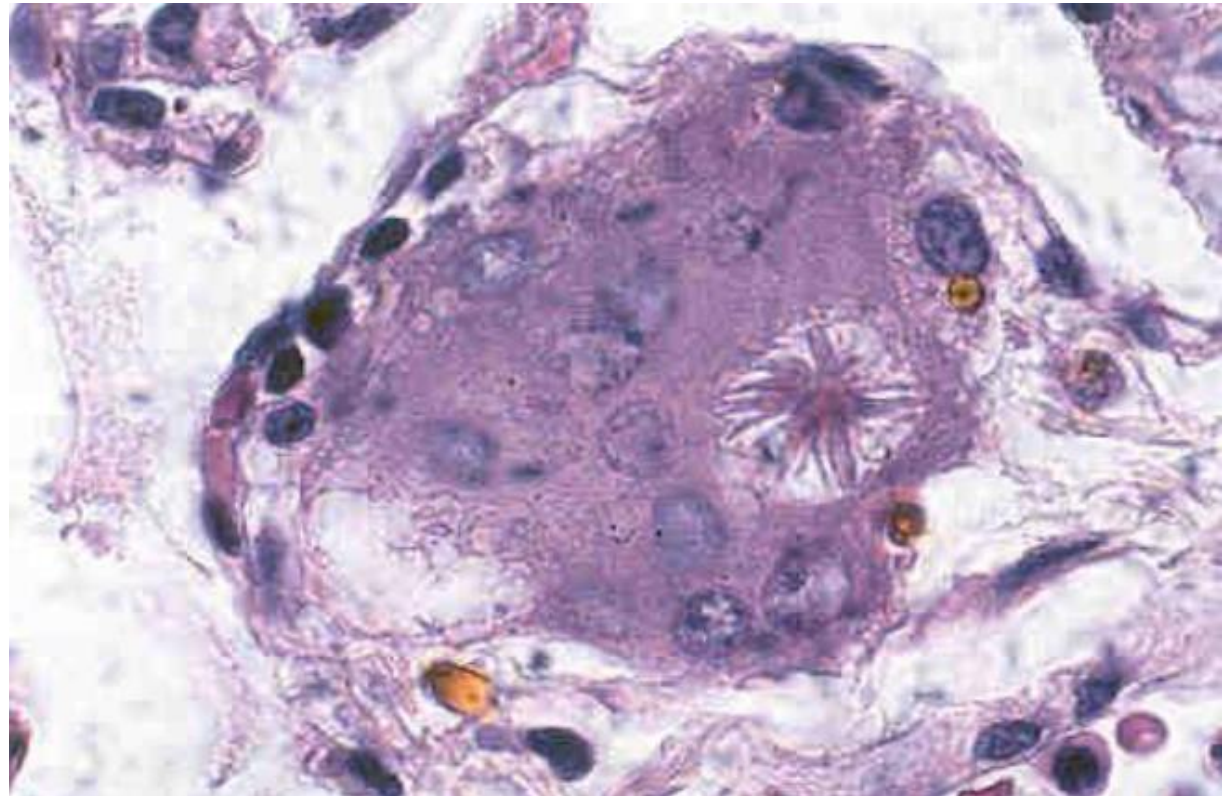
# Apresentações Clínicas

- Tuberculose
  - Primária
  - Secundária
  - Miliar
- Asbestose
- Sarcoidose



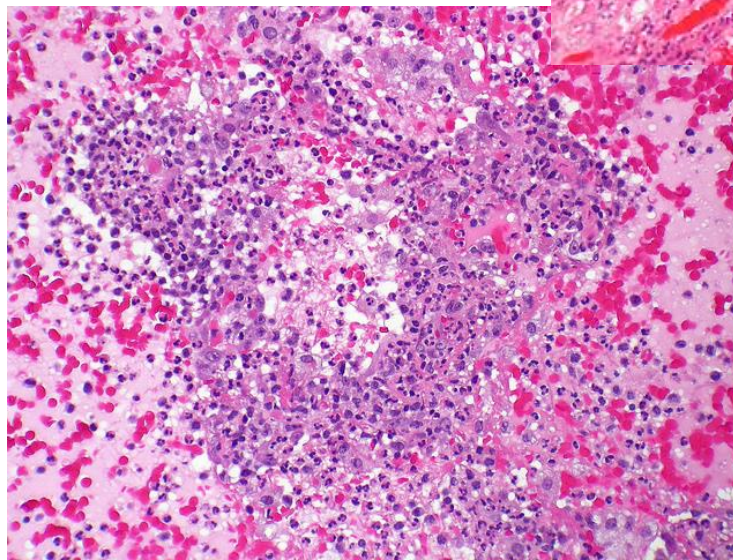
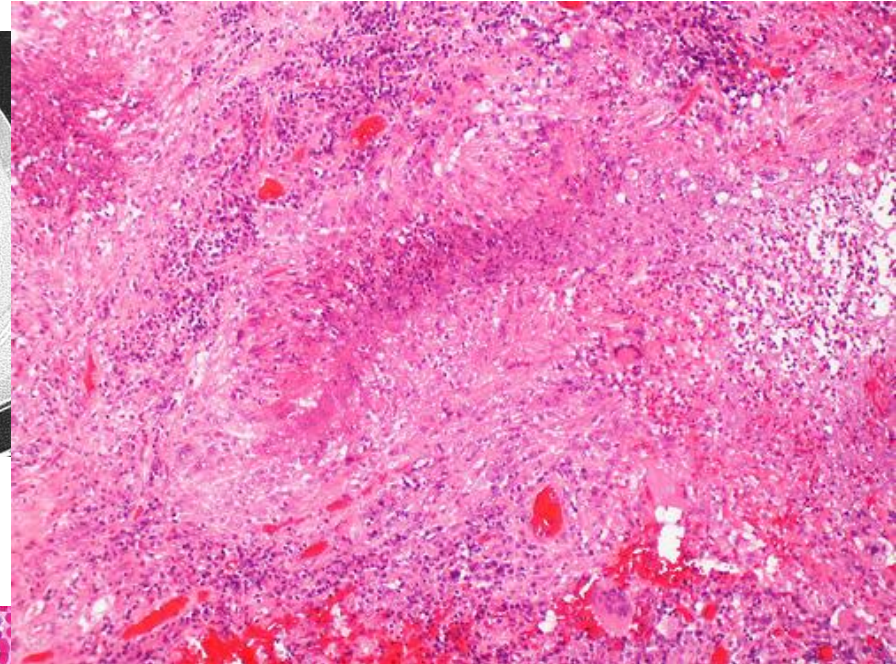
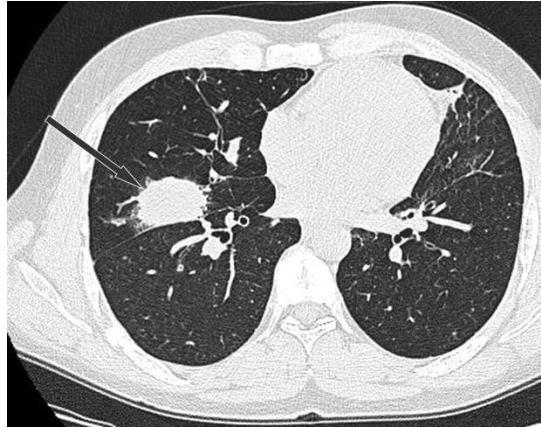
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  - Miliar
- Silicose
- Sarcoidose

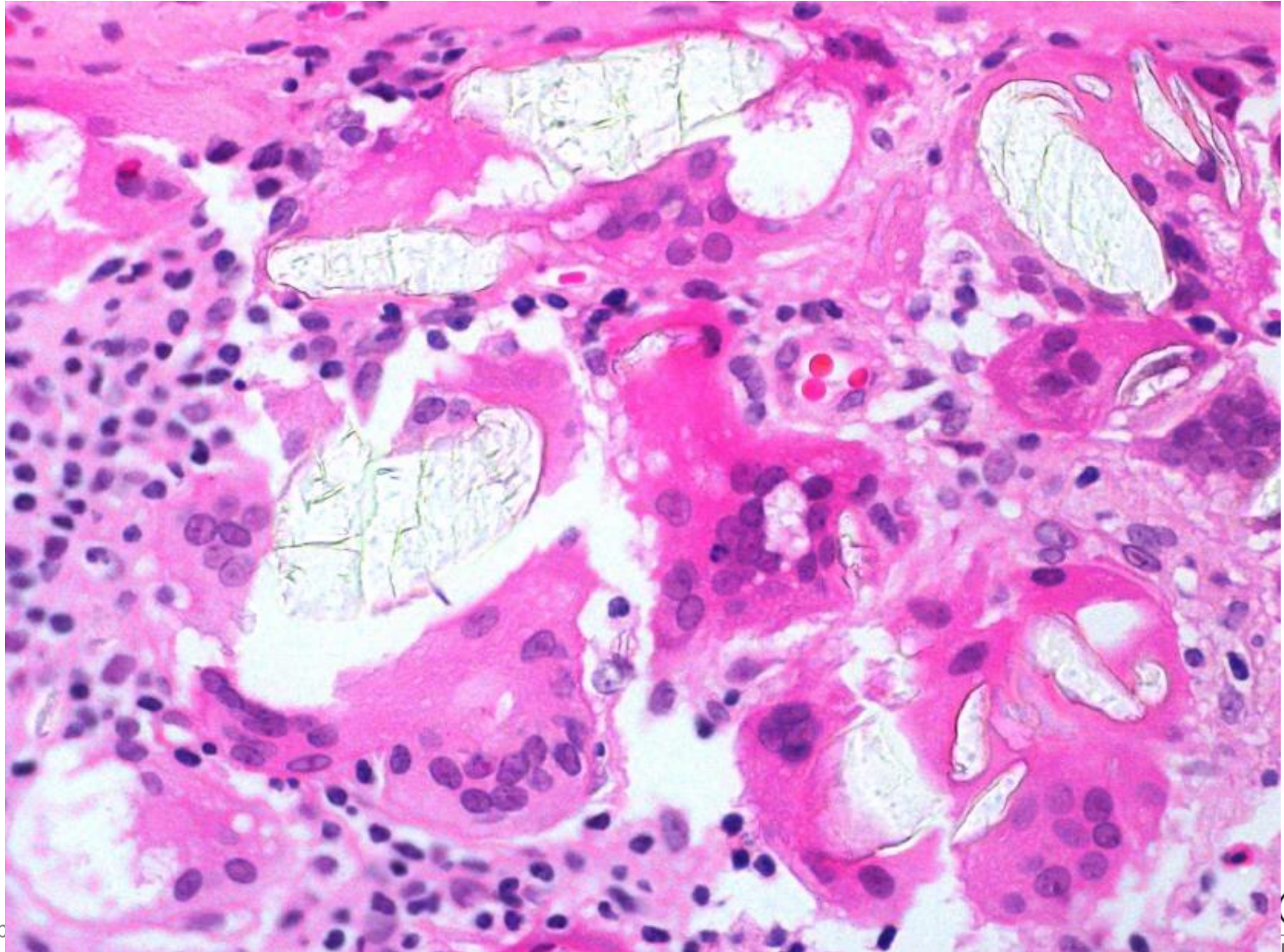


# Apresentações Clínicas

- Tuberculose
  - Primária
  - Secundária
  - Miliar
- Silicose
- Sarcoidose



# E este granuloma?



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