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Part 15 Public Hearing: Combination Products Containing Live Cellular Components

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Genzyme's Experience

- Cellular based therapies in development: autologous cell therapies, cancer vaccines, gene therapies, xenografts
- Commercial products: Epicel, Carticel

Epicel

- Cultured epidermal autograft
  - proliferative cultured autologous keratinocytes on petrolatum gauze backing
- Indicated for deep dermal or full thickness burns (>30% TBS) and congenital giant pigmented nevus
- Epicel available to patients since 1988
- 1997 designated medical device

Epicel

- 1998 HUD designation given (~ 100 pts./year)
- February 1999 - HDE submitted
- January 2000 - Epicel discussed at FDA Xenotransplant subcommittee (due to 3T3 mouse feeder cell line used for growing keratinocytes)

Potential Public Health Concerns

- Potential transmission of infectious agents
  - Tissue sourcing
  - Cross-contamination during processing
- Level of regulation commensurate with risk
  - Autologous vs allogeneic
  - Processing

Considerations for Regulation

- Manufacturing Controls
  - GMPs
  - process & assay validation
  - source materials (cell source, auxillary products)
  - aseptic processing procedures
  - environmental control
  - patient ID & lot tracking
  - product testing & shelf-life (sterility testing)
- Safety & Effectiveness
  - controlled clinical trials
  - flexible approach

Mode of Action & Product Designation

- Living cells release cytokines & other substrates that contribute to the effectiveness of the product
- Scaffold, matrix or biomaterials considered delivery system for optimizing/facilitating effect of cell being delivered
- Consistent approach to all products containing human living cells

Product Designation & Proposed Regulatory Process

- Current products regulated within CDRH should remain
- New cell containing products & new indications should be regulated by CBER
- Need clearly defined processes (guidances) for combined review of applications with CDRH
- Worldwide harmonization
  - EU current initiatives