

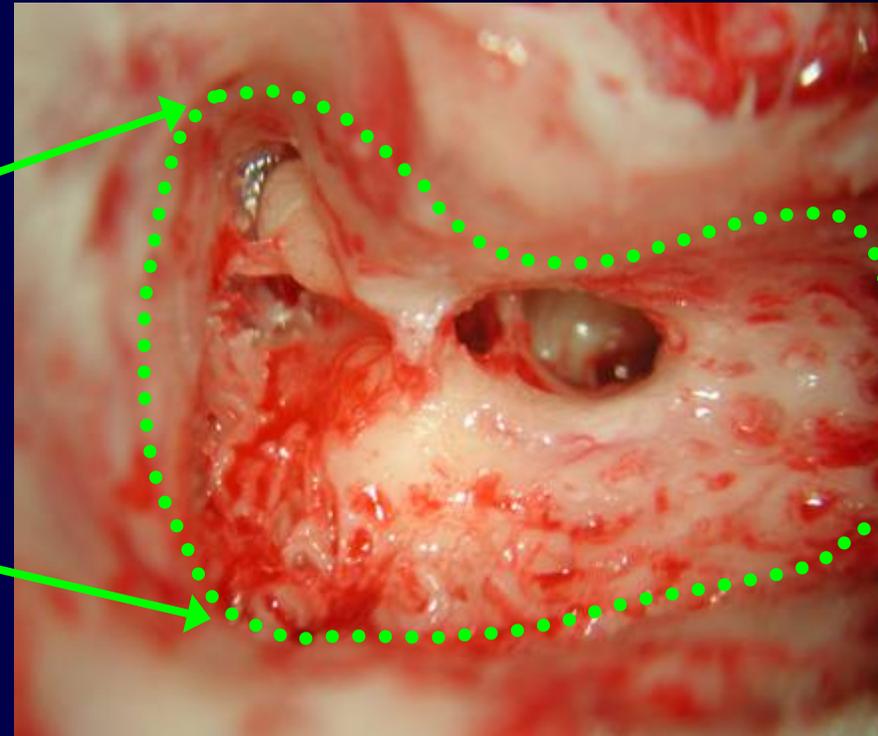
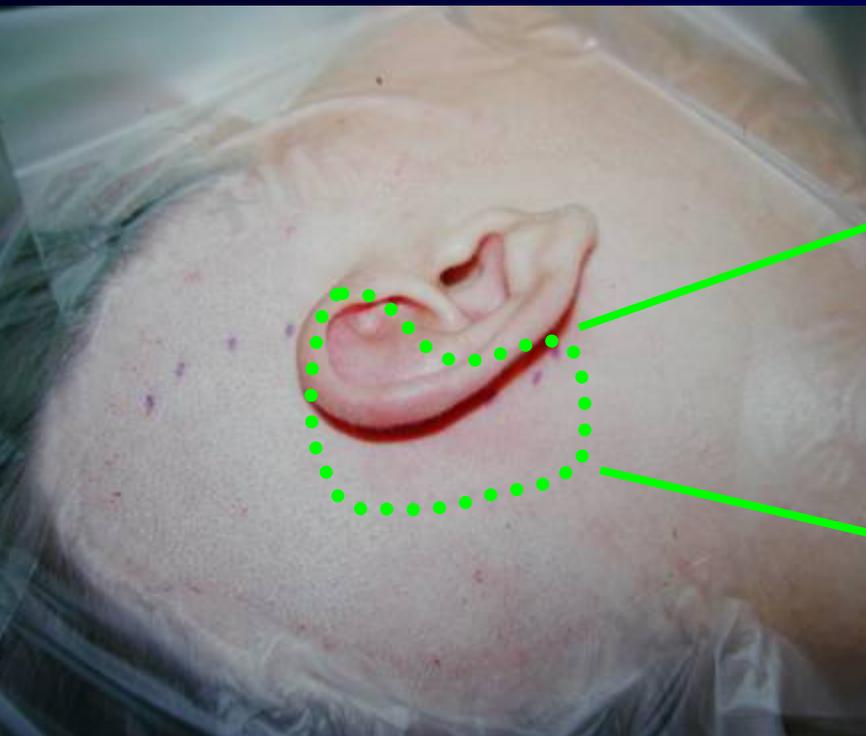
Image-Guided Otologic Surgery

RF Labadie, M Goldfarb, RL Galloway,

DS Haynes, JM Fitzpatrick

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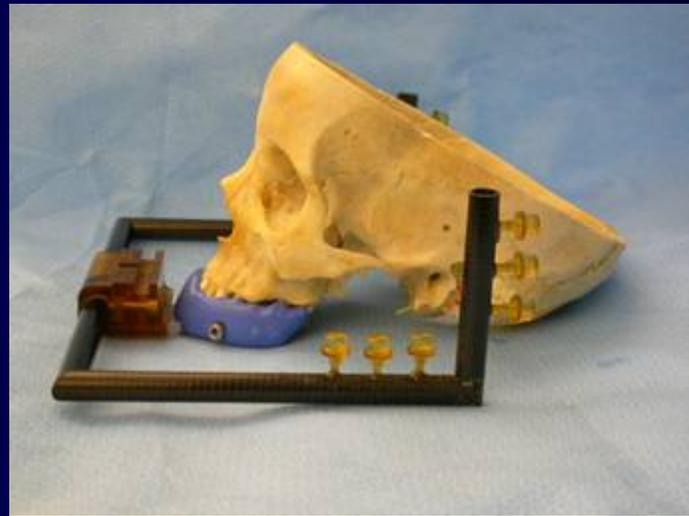
Supported by EB002886-01



Why not widespread use of IGS for otologic surgery?

- **Otologic Surgery**
 - ◆ **Prevalence: ~ 100/100,000**
 - ◆ **Diagnoses**
 - Cholesteatoma (trapped skin **BEHIND** ear drum)
 - Chronic ear infections
 - Hearing loss (cochlear implantation)
- **Requirements**
 - ◆ **Submillimeter accuracy**
 - ◆ **Non-invasive fiducial system**
 - ◆ **Non-restrictive fiducial system**
 - ◆ **Improve on current standard-of-care**
 - elective procedure, \approx 3 hours
 - low incidence of complications



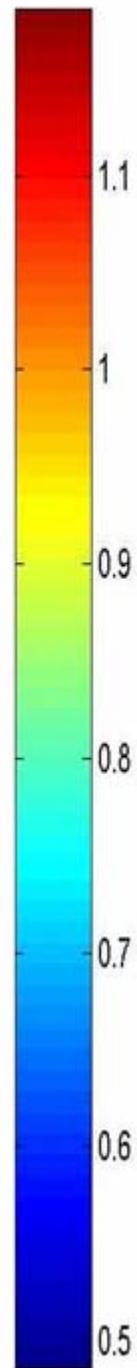
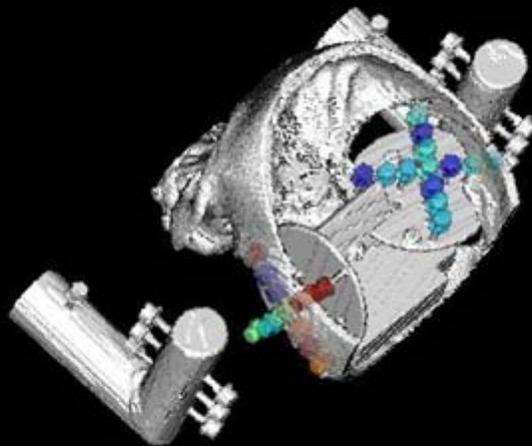
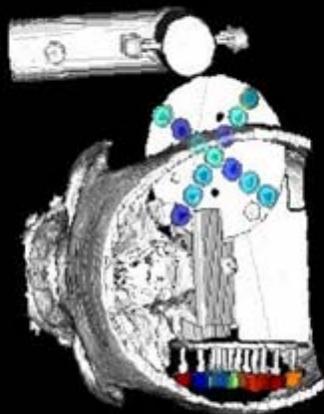
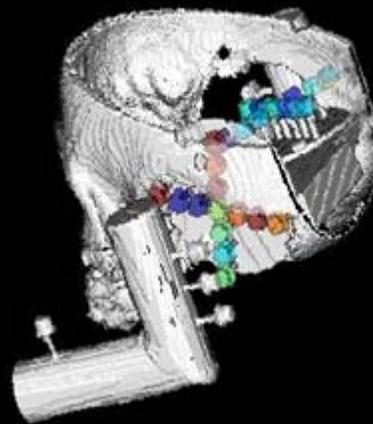
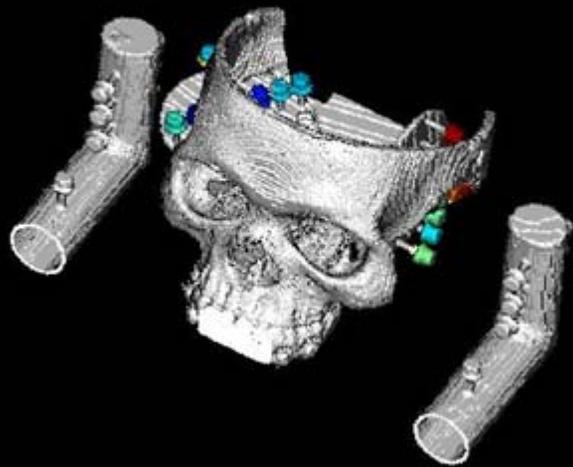


EarMark™ System: Radiographic Set-Up



EarMark™ System: OR Set-UP





Video of Percutaneous Cochlear Implantation

