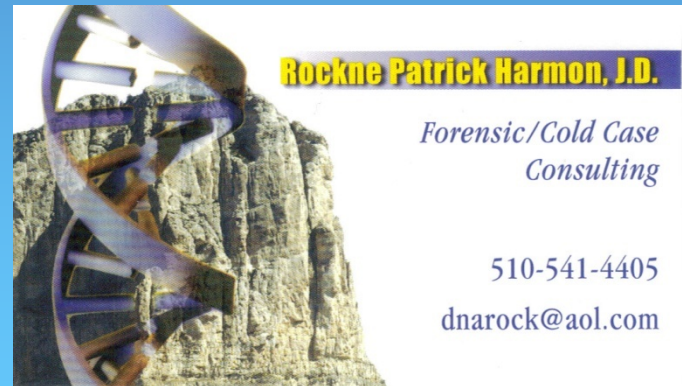


Familial DNA Searching 2009

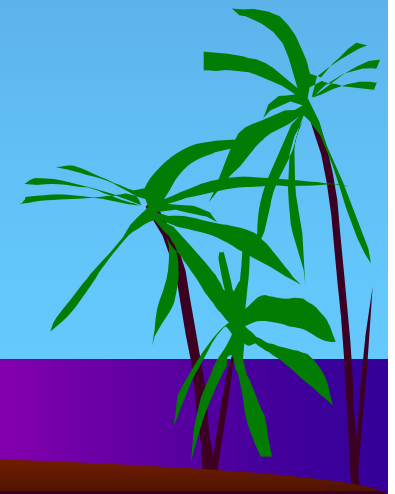
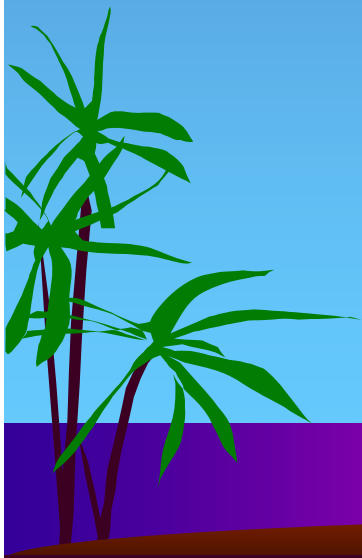
Rockne P. Harmon





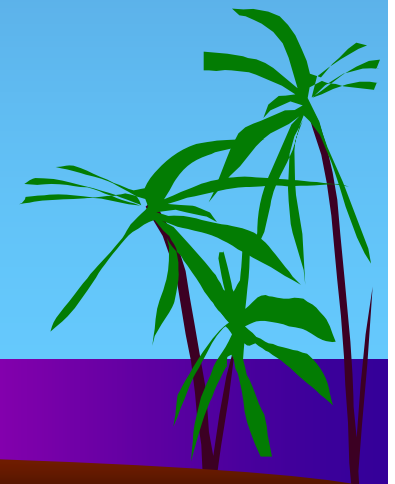
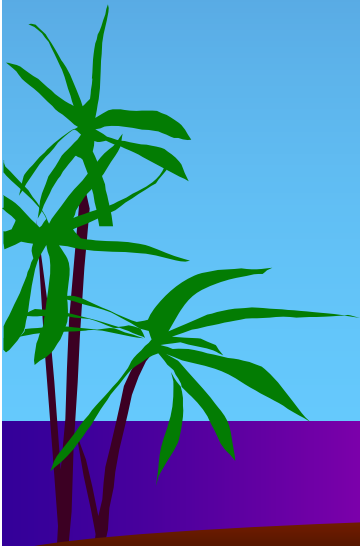
Familial DNA Searching

- s Does it work?
- s How/how well?
- s Can it be done? – legal
- s Should it be done? – policy
- s California approach



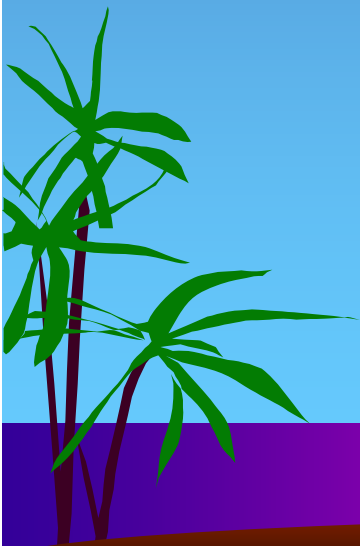
Codis Measures of Efficiency

- s Cold hit rate – 27%
 - 87% cold hits in state
 - Cold hit follow up efficiency
- s *Familial searching*
- s Case to case
 - Investigative leads
- s Partial match disclosure



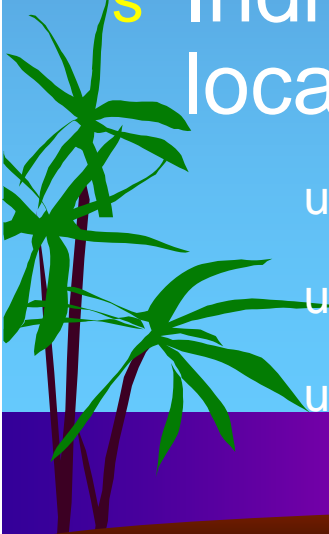
Cold Hit to Conviction

- s No national tracking
- s Few states track
- s California's C.H.O.P.
 - Fewer than 50% lead to conviction
- s “Conviction rate” $27\% \times .50 = 13.5\%$



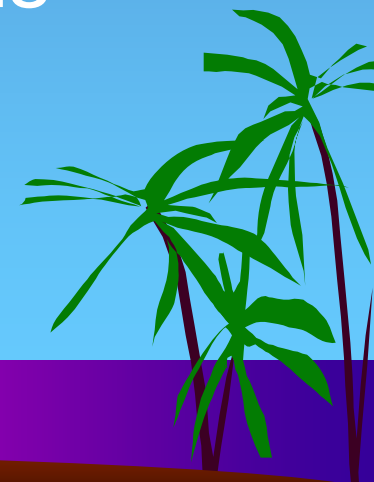
Latest familial search stats (UK)

- s Total cases submitted: **157** (to date), **93** are currently 'Active'
- s **42** 'Closed' or 'Solved' by other means
- s **8** 'Solved' by other means but a relation was in familial results
- s Individual who left the DNA has been located in **18** cases so far:
 - u **1** sub judice
 - u **4** resulted in no conviction
 - u **13** resulted in convictions (12% success rate)



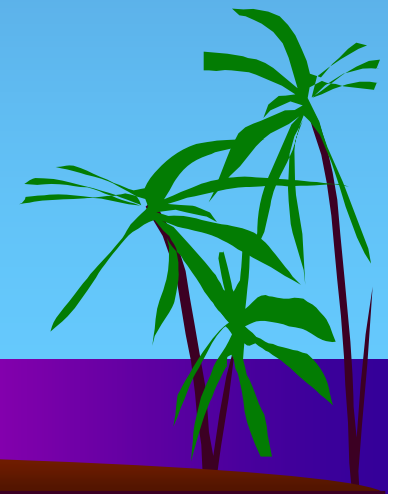
Partial (close) Match

- s Not Familial searching (UK/Calif.)
- s Arbitrary search criteria (like AFIS)
- s A crude, inefficient way to use Codis to solve cases
- s Still potential investigative leads



Familial Searching- Cons

- s Privacy invasion – “genetic surveillance”
- s Racial disparity
- s Too much work already
- s Cops will abuse it
- s Statute prevents it



Different Statutory “purpose”

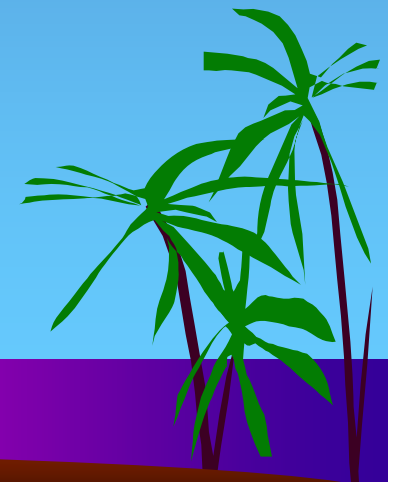
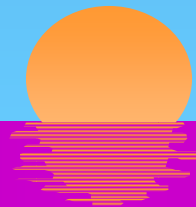
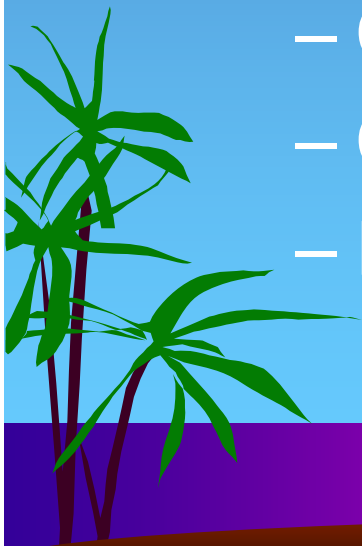
s Legislative history

- Restrictions on use, disclosure
- Not for insurance, employment...

s “Criminal identification” purpose

MEANS VS. PURPOSE

- Cold hit directly identifies true suspect
- Cold hit leads indirectly to true suspect
- Close match leads to suspect
- Familial Search leads to suspect



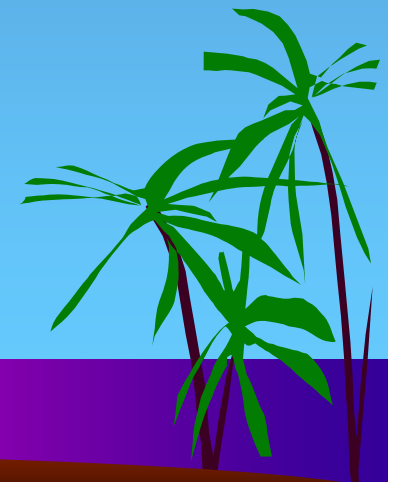
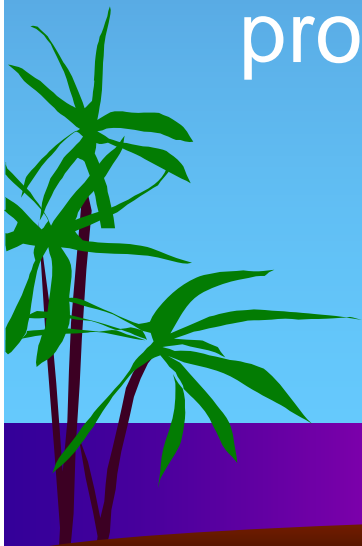
CODIS—NDIS Statistics

- ◆ **Measuring Success**
- ◆ The National DNA Index (NDIS) contains over 6,949,416 offender profiles and 264,647 forensic profiles as of April 2009. Ultimately, the success of the CODIS program will be measured by the crimes it helps to solve. **CODIS's primary metric, the "Investigation Aided,"** tracks the number of criminal investigations where CODIS has added value to the investigative process. As of April 2009, CODIS has produced over 89,100 hits assisting in more than 88,000 investigations.



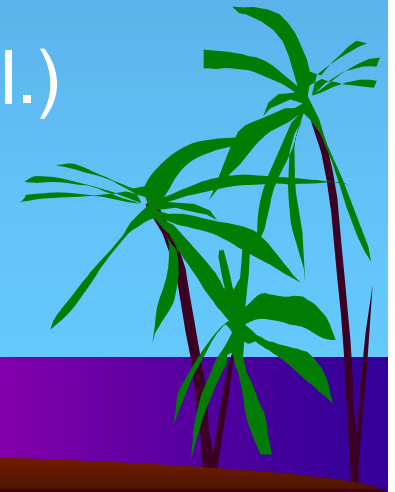
Conflict with Justice System

- s Withhold real investigative leads
- s Might help convict innocent
- s New trial – Brady
- s Undermine post-conviction exoneration process, or the death penalty



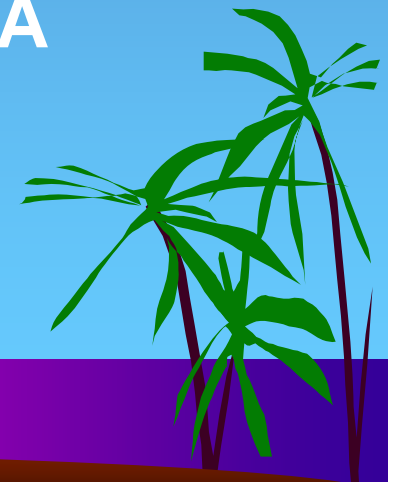
Post-Conviction Testing

- s Test evidence
- s If inconsistent with defendant-
 - Search Codis/NDIS – Descovic/Westchester, Krone/Az
 - Partial/close match
 - Familial search – Juan Rivera (III.)



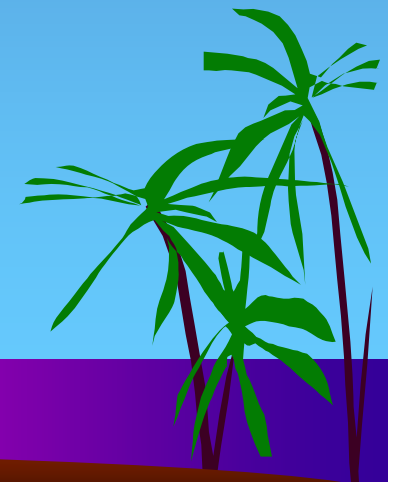
Innocence Project Support for Codis (Osborne)

“The advent of STR testing has enabled not only the exoneration of individuals who have been wrongfully convicted of crimes, but also, in many cases, the identification of the true perpetrators of those crimes. Both of those tasks have been facilitated by the Combined DNA Index System (CODIS), a database operated by the Federal Bureau of Investigation (FBI)”



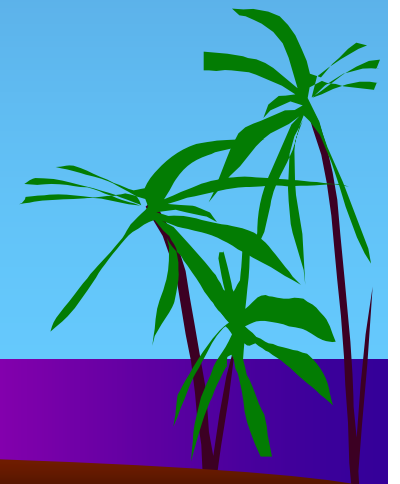
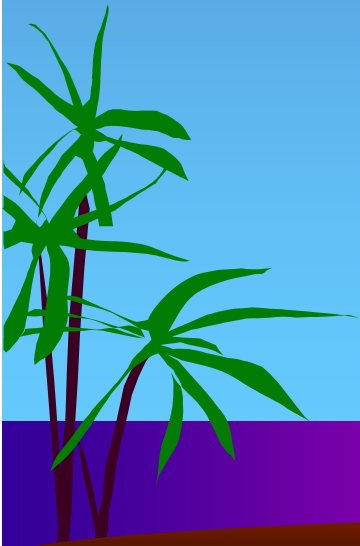
Proposal

- s Develop disclosure policy among all vested parties – not just Codis
- s Develop investigative/legal protocol
- s Educate – DA/Investigator team
- s Implement familial search tool
- s States can change rules



California Protocol

- s Special software
- s Search database for relatives
- s Rank in order of likelihood
- s Threshold
- s Y-str's to confirm/refute
- s Only disclose if Y confirms



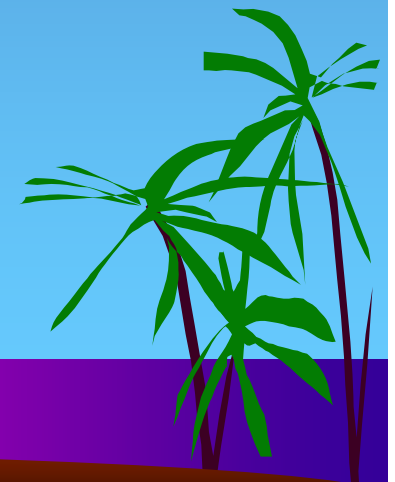
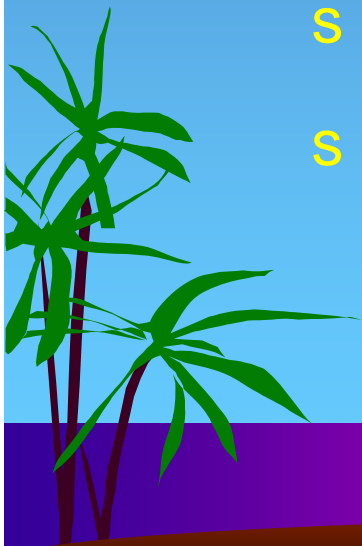
California Familial Search Policy

- Written request to the Bureau Chief
 - u Describes the case
 - u All investigative leads have been exhausted
 - u Investigating agency and prosecutor's office are committed to further investigate the case if the name of an offender is eventually released
 - u MOU between DOJ and law enforcement agency
- Crime Scene Profile is a single source profile
 - u 15 loci
- Y-STR typing of the crime scene evidence has been completed



Familial Search Investigations

- s Y-str's- as a condition of disclosure
- s Family structure
- s Criminal history
- s In/out of custody
- s Owed samples
- s No “genetic surveillance”



The Inevitability of familial searching

- s California/Denver
- s Innocence Project
- s Court ordered - Juan Rivera case
- s Enhance Codis – justice served

