

**Electron Crystallography
Workshop 2006**

University of California at Davis
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<http://2dx.org/workshop>

National Science Foundation Biological Sciences (IBCS) JEOL STVIPS FEI COMPANY U.C. DAVIS

Green et al. (Waltz Lab)

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Humans:

21,000 genes

7,000 membrane proteins

800 folds

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Electron Crystallography

The structure of the protein, you are working on, is solved by X-ray crystallography. Back to start.

52

51: You are drinking coffee instead of working. Wait for our round.

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Membrane Protein Crystallography

	e-cryst.	XRD
structures/year (last 5 years)	1	5 to 10
protein concentration	2 mg/ml	10 mg/ml
protein quantity	1 mg/month	10 mg/month
time to crystallize	1 year	10 years, but high throughput
time from crystal to structure (<4Å)	5 years	1 month
number of labs	< 20	> 1000
environment for protein in crystal	in the membrane	in detergent, PEG, high salt

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