



Dimensions and Dark Matter

April 19, 2012

New purifications

- All from metagenomic targets
 - Ordered VCID5956, 5958, 5961, 5964, 5965, 5972 – Grown and in purification
 - Should finish Friday or Saturday
 - Submit for crystallization when ready – Friday or Saturday
- Submitted for crystallization on March 23
 - 5 trays each
 - **VCID5971 and 5965 have candidate crystals**
- Requested fermentations of VCID5939, 5956, 5972, 5973, 5980, 5989
- Growing this week, purifying next week

Crystals



VCID5965

Small, thin, triangular plates

Hampton CSHT_A5:

0.2M Na₃Citrate

0.1M HEPES, pH 7.5

30% v/v (+/-)-2-Methyl-2,4-pentanediol



VCID5971

Needles/prisms

Wizard 3/4_F3:

50% PEG400

0.1M NaAcetate, pH 4.5

0.2 M LiSO₄

Examples of both to be screened

Structures Tally

Target	PDB	res	PDB	Res
Phage Pdf	3UWA (apo)	1.95Å	3UWB (+ actinonin)	1.70Å
Se PDF	4DR8 (apo)	1.55Å	4DR9 (+ actinonin)	1.90Å
Thioredoxin	3VFI	1.75Å	-	-
Capsid	4DMI	1.50Å	4E27 (+Iodide)	2.4Å

Summary

- 48 genes in first set (VCID5513-5628)
 - 7 from Microcystis phage
 - 7 from Synechococcus phage
 - 34 proteins from various phages
 - 20 purified and in crystallization trials
- 96 metagenomic samples (VCID5920-6019 & 6700-6716)
 - 33 soluble
 - 22 purified and in crystallization trials
 - 11 not yet attempted
- Papers
 - Pdf paper sent to Alex to look over and comment on
 - ANN paper next in line for me – send to Alex next week?
 - Thioredoxin?