



Dimensions and Dark Matter

May 2, 2012

New purifications

- All from metagenomic targets
 - New targets purified and in crystallization trials
 - VCID5939, 5956, 5972, 5973, 5980, 5989 submitted for crystallization on April 27 (5939, 5971, 5973, 5980) and April 30 (5956)
 - 5 trays each
 - Requested fermentations of VCID5990, 5991, 6010, 6016, 6700, 6702

Crystals



VCID5965

Small, thin, triangular plates

Hampton CSHT_A5:

0.2M $\text{Na}_3\text{Citrate}$

0.1M HEPES, pH 7.5

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

No Diffraction ☹️



VCID5971

Needles/prisms

Wizard 3/4_F3:

50% PEG400

0.1M NaAcetate, pH 4.5

0.2 M LiSO_4

Salt ☹️

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
 - Thioredoxin?