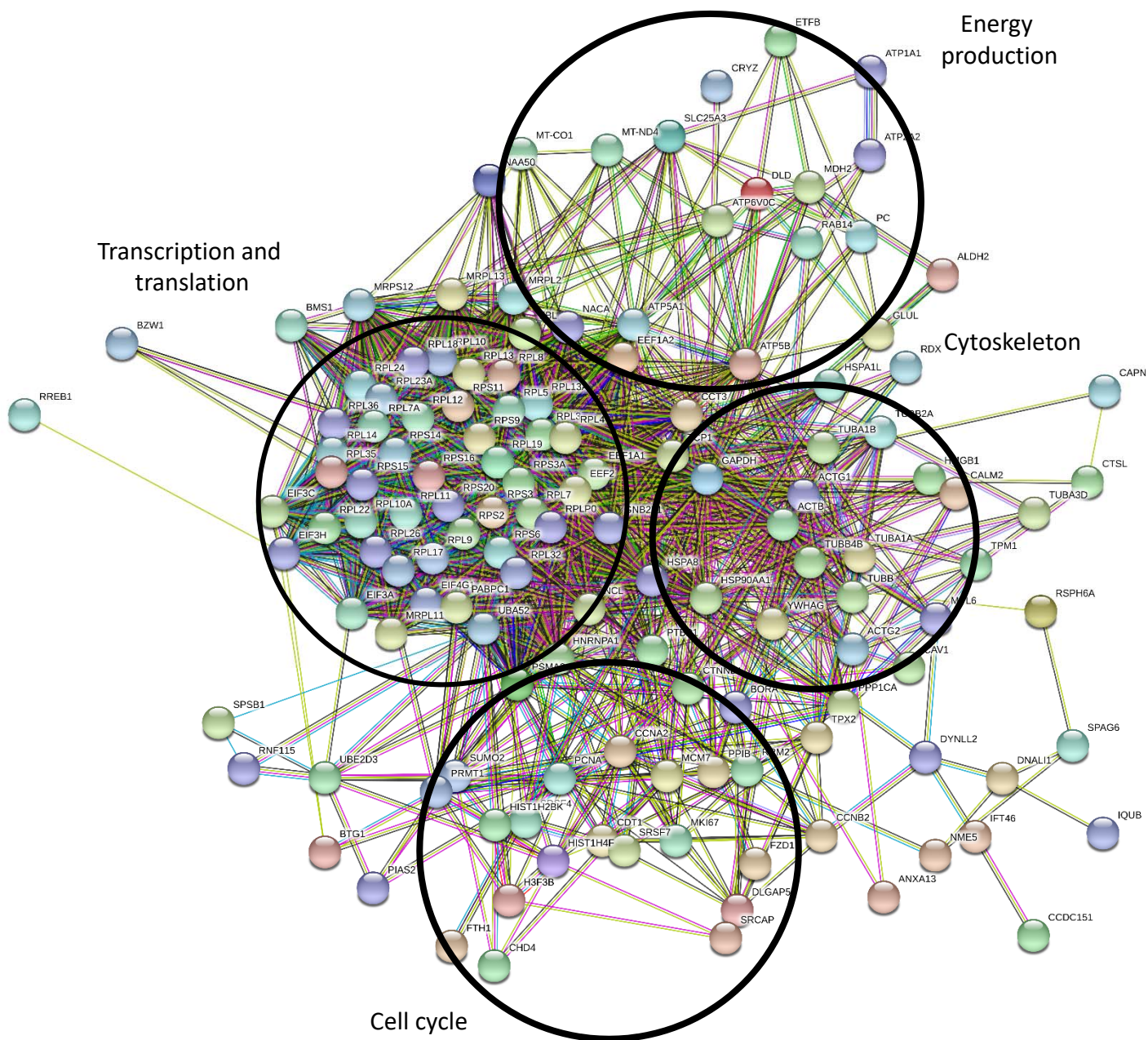


## **Supplementary Information**

Lack of long-term acclimation in Antarctic encrusting species suggests  
vulnerability to warming

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**Supplementary Figure 1: STRING<sup>1,2</sup> output annotated with functional clusters**

**Supplementary Table 1:** Transcriptome assembly and annotation metrics

<b>Assembly metrics</b>		
Total trinity genes	45,527	
Total trinity transcripts	61,421	
Total bases	29,824,840	
N50	713	
Contigs in N50	9,766	
Percentage GC	44	
Mean length for contigs	486	
Max contig length	49,432	
<b>Annotation metrics</b>		
	<b>Unique</b>	<b>Total</b>
gene_id	45,527	45,527
transcript_id	61,421	61,421
prot_id	14,658	14,658
prot_coords	8,266	14,658
sprot_Top_BLASTX_hit	13,915	13,919
sprot_Top_BLASTP_hit	9,045	9,301
Pfam	7,887	8,151
gene_ontology_pfam	695	4,972
TmHMM	999	1,029
SignalP	457	521

**Supplementary Table 2:** Enriched GO processes in the control versus +2°C transcriptome comparisons. Direction of “down” means that the processes were less represented in controls compared with +2 and thus effectively enriched in +2 compared to control samples.

<b>GO Biological Process</b>						
	No of Genes	Proportion Down	Proportion Up	Direction	P-Value	FDR
GO:0015031 PROTEIN_TRANSPORT	10	0.60	0.00	Down	0.001	0.011
GO:0006351 TRANSCRIPTION_DNA-TEMPLATED	29	0.59	0.14	Down	0.001	0.011
<b>GO Molecular Function</b>						
GO:0019843 RRNA_BINDING	24	0.75	0.00	Down	0.001	0.016
GO:0003899 DNA-DIRECTED_5'-3'_RNA_POLYMERASE_ACTIVITY	22	0.73	0.09	Down	0.001	0.016



**Supplementary Table 4:** Blast output from oligotype analyses. Oligotypes with superscript numerals indicate those which matched polar study accessions supported by the associated references in Supplementary references.

Oligotype	Accession number of best match	% identity	Description
<sup>3</sup> TT	HG941681	100	Uncultured <i>Granulosicoccus</i> sp
AC	LC171298	99.8	Uncultured beta proteobacterium
AA	EU290343	100	Uncultured bacterium
GG	EU290387	99.3	Uncultured bacterium
CT	JQ218768	99.6	Uncultured proteobacterium
<sup>4</sup> CG	GU235526	99.1	Uncultured marine bacterium
CA	KU647988	98.4	Uncultured bacterium
GC	HG934341	99.1	Uncultured <i>Leucothrix</i> sp.
TC	KC462967	99.1	<i>Shewanella</i> sp.
CC	EU290380	96.9	Uncultured bacterium
GT	EF466030	92.1	Uncultured epsilon proteobacterium
AT	KJ615748	93.6	Uncultured bacterium
GA	GQ274134	97.8	Uncultured <i>Bacteroidetes</i>
<sup>5</sup> TA	GQ472830	97.4	Uncultured <i>Verrucomicrobia</i> sp.
AG	AY527410	98.9	<i>Saprospira</i> sp.
TG	LC171275	96.9	Uncultured <i>Bacteroidetes</i>

## Supplementary references

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