

SUPPLEMENTARY MATERIAL

Effectiveness of phyto-active molecules on transcriptional expression, biofilm matrix and cell wall components of *Candida glabrata* and its clinical isolates

Payal Gupta¹, Sonam Gupta¹, Meenakshi Sharma¹, Navin Kumar², Vikas Pruthi^{1*}, Krishna Mohan Poluri^{1*}

¹Department of Biotechnology, Indian Institute of Technology Roorkee,

Roorkee - 247667, Uttarakhand, India

²Department of Biotechnology, Graphic Era University, Dehradun - 248002, Uttarakhand, India

Corresponding Authors:

Prof. VikasPruthi

Email: vikasfbs@iitr.ac.in; vikasfbs@gmail.com

PH.: 091-1332-285530

Fax: 091-1332-273560

Dr. Krishna Mohan Poluri

Email: mohanpmk@gmail.com; krishfbt@iitr.ac.in

PH.: 091-1332-284779

Fax: 091-1332-273560

Figure S1: Effect of CIN and EUG on (A) *C. glabrata*, (B) CCG1, (C) CCG2, (D) CCG3 and (E) CCG4 biofilm development. The metabolic activity was measured by XTT reduction assay. Data is expressed in terms of percent inhibition of biofilm relative to its untreated control biofilm.

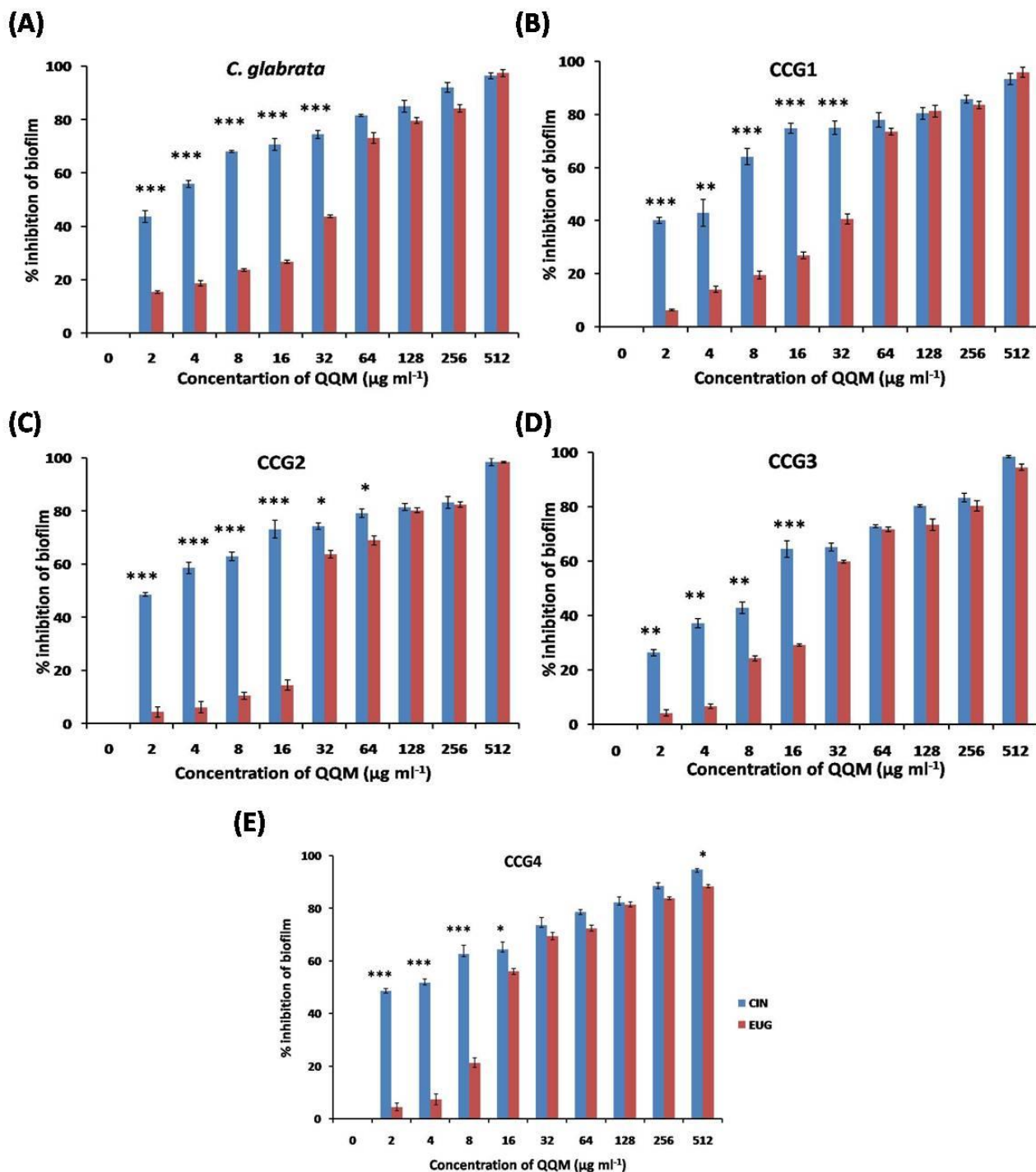


Figure S2: Effect of CIN and EUG in eradicating mature biofilm of (A) *C. glabrata*, (B) CCG1, (C) CCG2, (D) CCG3 and (E) CCG4. The metabolic activity was measured by XTT reduction assay. Data is expressed in terms of percent reduction of biofilm relative to its untreated control biofilm.

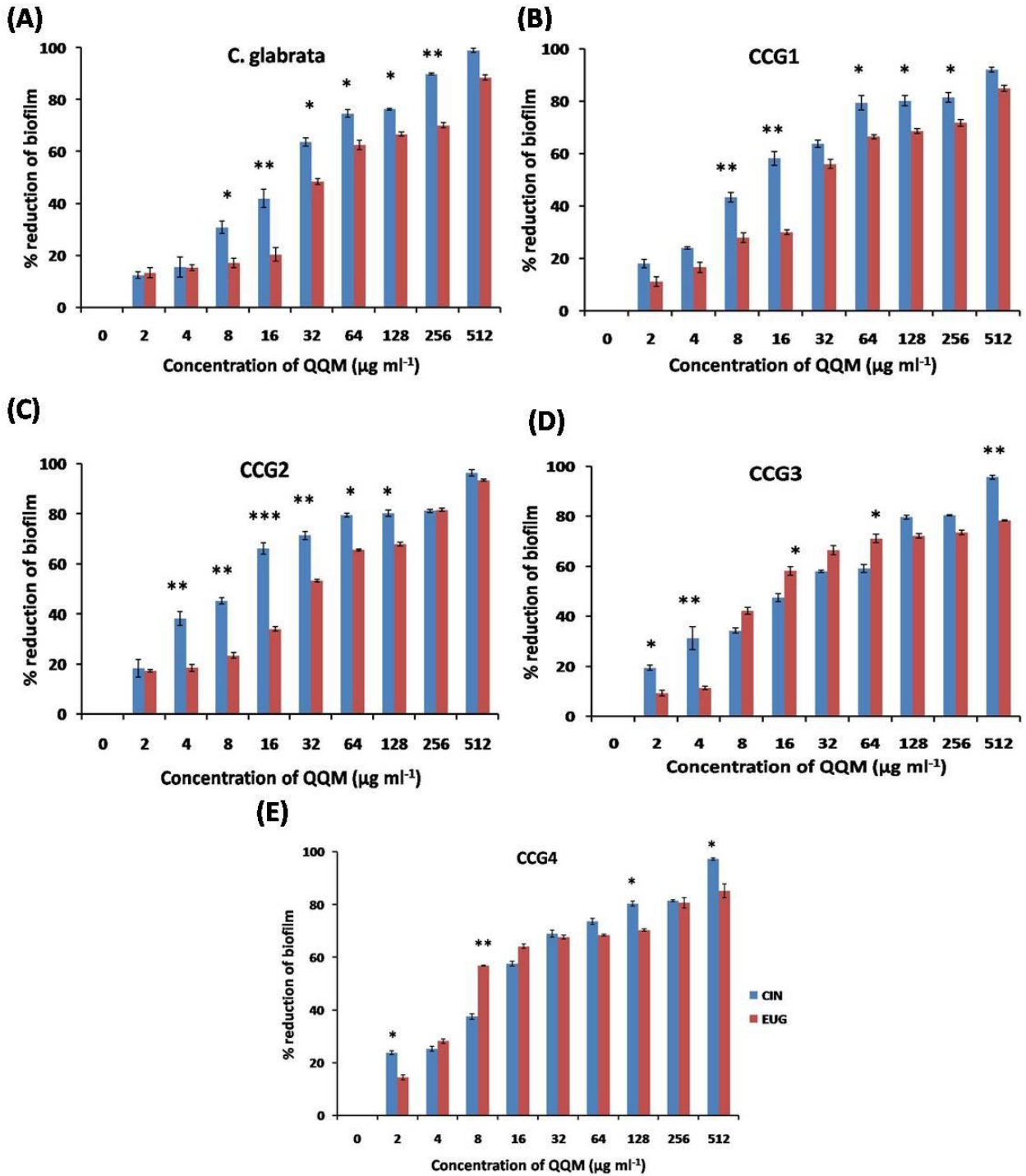


Figure S3: Quantification of hydrophobicity of *C. glabrata* and CCG3 cells treated with sub-inhibitory concentration of CIN ($64 \mu\text{g ml}^{-1}$), and EUG ($128 \mu\text{g ml}^{-1}$).

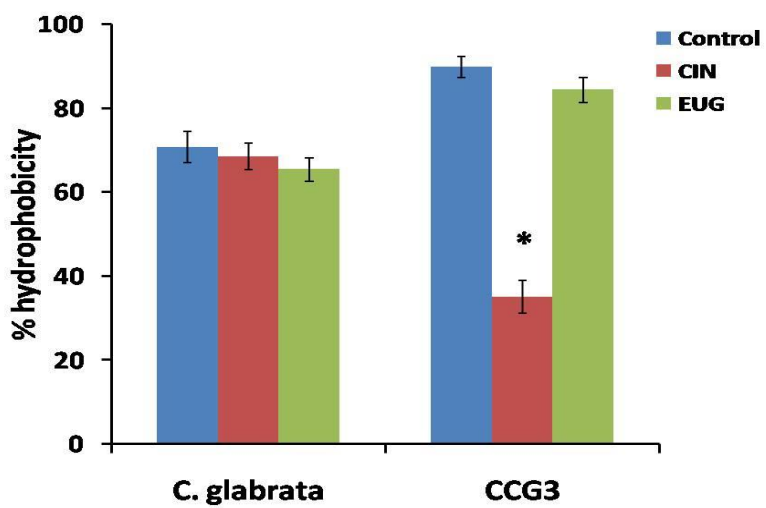


Table S1: Sequence of primers for RT-PCR

Primer	Sequence (5'-3')	Amplified product size (bp)
CgACT1-S CgACT1-AS	TTACCAACTGGGATGACATGGA GGAGCCTCGGTCAACAAGAC	145
CgCDR1-S CgCDR1-AS	AGATGTGTTGGTTCTGTCTCAA CCGGAATACATTGACAAACCAAG	197
CgERG2-S CgERG2-AS	TCCCAGGTATGACCCATCATC TGCGAAGGAGTTTTGATCCAT	204
CgERG3-S CgERG3-AS	TGCACTGGCCTCGTGTCTAC TAACCGTCTGACTGGGTGGAA	188
CgERG4-S CgERG4-AS	CCCTCAATTAGGTGTCGTCATGT GGCACGATTAATTCTTCACCCTTA	162
CgERG10-S CgERG10-AS	GCCAGAACCCCAATTGGTT TGCAATGACACCTAGGTCAACAG	195
CgERG11-S CgERG11-AS	TGTCTTGATGGGTGGTCAACA CTGGTCTTTCAGCCAAATGCA	184
CgAUS1-S CgAUS1-AS	TGGCTAACTTGTTTCGCTGGT AGCGTACATTGCAGGGTTCA	125
CgKRE1-S CgKRE1-AS	CGAAGGCTACGACTACAAACA CGGCATCAGTGACAACAGTA	102
CgFKS1-S CgFKS1-AS	CGGTGATACAGCCAACTACAA CTCCTCCATGGCCTTCTTATTC	145

Table S2: Percentage reduction in metabolic activity of *C. glabrata* biofilm cells relative to control cells developed on the surface of urinary catheter and contact eye lens.

QQM ($\mu\text{g ml}^{-1}$)	CG (% reduction in biofilm)		CCG 3 (% reduction in biofilm)	
	Catheter	Eye lens	Catheter	Eye lens
CIN (128)	36.1 \pm 1.3	85.8 \pm 1.7	76.9 \pm 1.6	84.4 \pm 1.1
CIN (256)	54.8 \pm 3.8	86.7 \pm 2.6	79.1 \pm 1.5	84.8 \pm 1.8
EUG (256)	14.4 \pm 2.3	74.7 \pm 2.7	57.1 \pm 1.9	75.9 \pm 1.3
EUG (512)	22.4 \pm 3.5	83.7 \pm 2.8	64.1 \pm 1.2	79.4 \pm 3.3