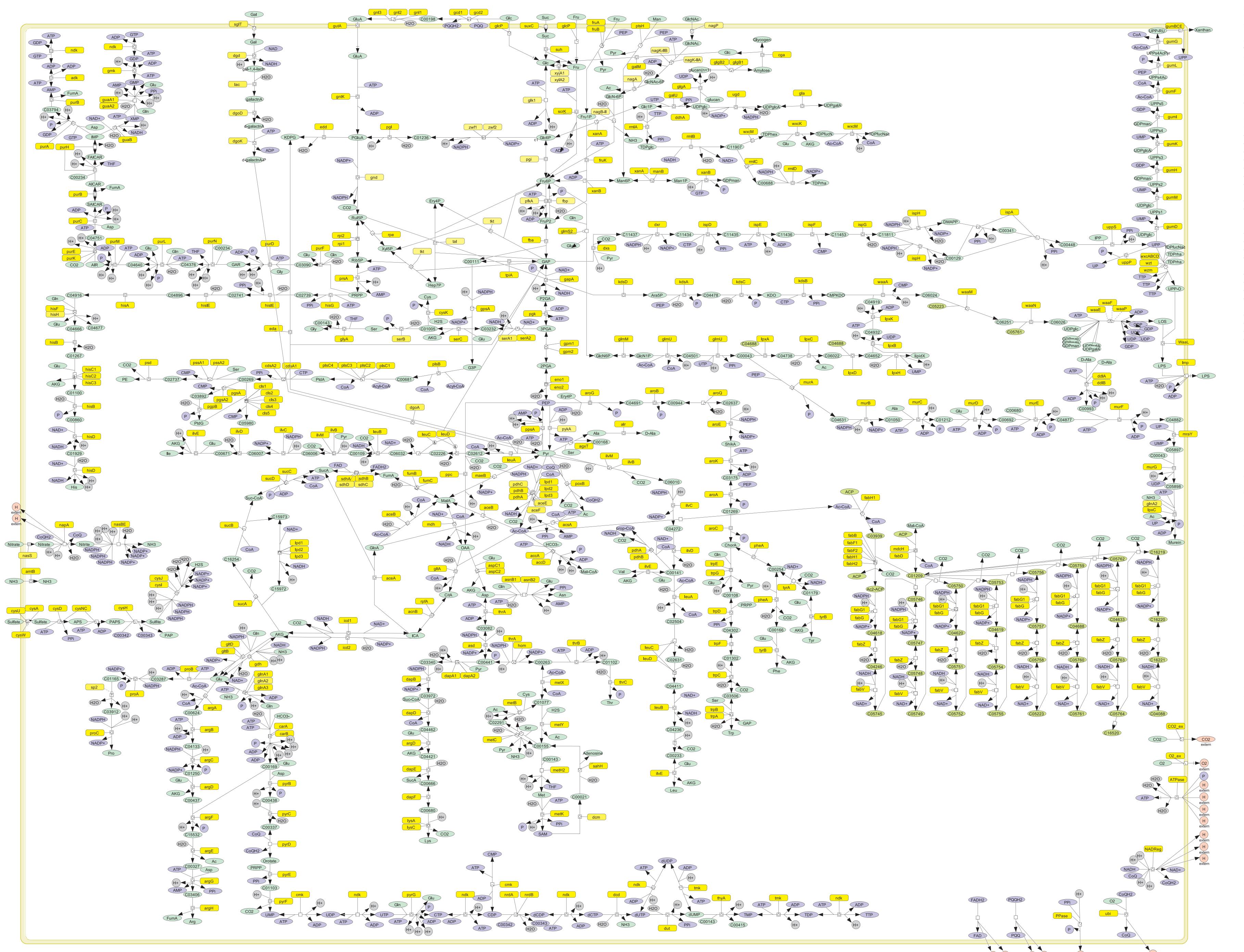
**Supplementary Figure 2**. Genome-based reconstruction of the central metabolism and the polysaccharide biosynthesis pathways of *Xanthomonas campestris* pv. campestris B100 in systems biology markup language (SBML)



The metabolic model displayed was generated applying the CARMEN software (Schneider et al., 2010) and subsequently curated using CellDesigner. Metabolites are symbolized by rounded rectangles shaded in green. Purple shading indicates metabolic cofactors. The metabolites are linked by arrows that indicate metabolic interconversions, with the assumed directions of the reactions specified by the arrowheads. Rounded rectangles with yellow coloring identify the genes that code for the enzymes that catalyze the specific metabolic reactions. More information on CellDesigner is available at http://celldesigner.org/ while SBML documentation is provided at http://sbml.org/Documents/Specifications.

## **Metabolite Abbreviations**

3PGA A ABEE Ac Ac-CoA ACP Acyl-CoA ADP ADPglc AICAR	2-Phospho-D-glycerate 3-Phospho-D-glycerate Adenosine 4-Aminobenzoate Acetate Acetyl coenzyme A	His ICA Ile IMP	Histidine Isocitrate Isoleucine Inosine 5'-
A ABEE Ac Ac-CoA ACP Acyl-CoA ADP  ADPglc AICAR	Adenosine 4-Aminobenzoate Acetate Acetyl coenzyme A	lle	Isoleucine
Ac Ac-CoA ACP Acyl-CoA ADP ADPglc AICAR	Acetate Acetyl coenzyme A	IMP	Inosine 5'-
Ac-CoA ACP Acyl-CoA ADP ADPglc AICAR	Acetyl coenzyme A		
ACP Acyl-CoA ADP ADPglc AICAR		IPP	monophosphate Isopentenyl dipho
ADPglc AICAR	Acyl-carrier protein	KDO	3-Deoxy-D-manno
ADPglc AICAR	Acyl coenzyme A	KDDO	octulosonate
ADPglc AICAR	Adenosine 5'- diphosphate	KDPG	2-Dehydro-3-deox phospho-D-glucor
	ADP-glucose	LacA	Lactate
	1-(5'-Phosphoribosyl)-5-	Leu	Leucine
	amino-4- imidazolecarboxamide	lipidX Lys	Lipid X Lysine
	Aminoimidazole ribotide	Mal	Maltose
	2-Oxoglutarate	Mal6P	Maltose 6-phosph
	Alanine Adenosine 5'-	Mal6P MalA	Maltose 6-phosph Malate
/\IVII	monophosphate		Malonyl-CoA
Amylose	Amylose	Man	D-Mannose
	Adeylyl sulfate D-Arabinose	Man1P Man6P	D-Mannose 1-pho D-Mannose 6-pho
	D-Arabinose 5-	Met	Methionine Methionine
	phosphate	Mur	Muramic acid
0	Arginine Asparagine	Murein NAD+	Peptidoglycan Nicotinamide ade
	Aspartic acid	יאועי	dinucleotide
ATP	Adenosine 5'-	NADH	1,4-Dihydronicotir
	triphosphate Cytidine 5'-diphosphate	NADD	Alicotinamide adel
	Cytidine 5'-diphosphate CDP-glucose	NADP+	Nicotinamide adei dinucleotide phos
ChorA	Chorismate	NADPH	Dihydronicotinami
	Citrate Cytidine 5'-		adenine dinucleot
	monophosphate	NH3	phosphate Ammonia
CMPKDO	CMP-3-deoxy-D-manno-	OAA	Oxaloacetate
	octulosonate Carbon dioxide	P P2GA	Phosphate 3-Phospho-D-glyg
	Carbon dioxide Coenzyme A	P2GA	3-Phospho-D-glyophosphate
CoQ	Coenzyme Q	PAP	Adenosine 3',5'-
	Ubiquinol Cytidina 5' triphaephata	DADC	bisphosphate
	Cytidine 5'-triphosphate Cysteine	PAPS	3'-Phosphoadeyly sulfate
D-Ala	D-Alanine	PE	Phospatidylethan
	2'-Deoxycytidine	PEP PGluA	Phosphoenolpyru
dCTP	diphosphate Deoxycytidine 5'-	Phe	6-Phospho-D-glud Phenylalanine
	triphosphate	PPI	Pyrophosphate
	Glycerone phosphate	Pro Co A	Proline  Proposition Co.
	Dimethylallyl diphosphate 2'-Deoxyuridine 5'-	PRPP	Propanoyl-CoA 5-Phospho-alpha-
	diphosphate	1 1 1 1	ribose 1-diphosph
	Deoxyuridine	PtdA	Phosphatidate
	monophosphate 2'-Deoxyuridine 5'-	PtdG Pyr	Phophatidylglycer Pyruvate
	triphosphate	Rha	D-Rhamnose
9	D-Erythrose 4-phosphate Flavin adenine	Rib	D-Ribose
	dinucleotide	Rib5P Rul5P	D-Ribose 5-phosp D-Ribulose 5-phosp
FADH2		SAICAR	1-(5'-Phosphoribo
	1-(5'-Phosphoribosyl)-5- formamido-4-		amino-4-(N-
	imidazolecarboxamide		succinocarboxam imidazole
	Formic acid	SAM	S-Adenosyl-L-me
	D-Fructose	Ser	Serine
	D-Fructose 1-phosphate D-Fructose 6-phosphate	ShikA Starch	Shikimate Starch
FruP2	beta-D-Fructose 1,6-	Suc	Sucrose
	bisphosphate	Suc6P	Sucrose 6-phosph
	Fumarate Glycerol 3-phosphate	Suc-CoA	Succinate Succinyl-CoA
Gal	D-Galactose	TDP	Deoxythymidine 5
	D-Glyceraldehyde 3-	TDDala	diphosphate
	phosphate Guanosine 5'-	TDPglc TDPLfuc	dTDP-glucose dTDP-D-fucose
	diphosphate	TDPLrha	dTDP-L-rhamnose
	GDP-L-fucose	THF	Tetrahydrofolate
	GDP-mannose GDP-D-rhamnose	Thia Thr	Thiamine Threonine
Glc	D-Glucose	TMP	Thymidine 5'-phos
	alpha-D-Glucose 1-	TPP	Thiamin diphosph
	phosphate alpha-D-Glucose 6-	Tre Tre6P	Trehalose 6-phos
	phosphate	Trp	Tryptophan
	Glucuronic acid	TŤP	Deoxythymidine 5
	D-Glucosamine 6- phosphate	Tyr	triphosphate Tyrosine
Gln	Glutamine	UDP	Uridine 5'-diphosp
	Glyoxylate	_	UDP-galacturonal
	Glutamic acid D-Gluconic acid		UDP-glucose UDP-glucuronate
	Glycine	UMP	Uridine 5'-
Glycogen	Glycogen	LID	monophosphate
	Guanosine 5'-phosphate Guanosine 5'-	UP UPP	Undecaprenyl pho Undecaprenyl
	triphosphate	011	diphosphate
H+	Hydron	UTP	Uridine 5'-triphosp
	Water Hydrogen-sulfide	Val XMP	Valine
	Hydrogen-sulfide Bicarbonate	XMP Xyl	Xanthosine 5'-pho D-Xylose
HCO3-	D-Sedoheptulose 7-	Xyl5P	D-Xylulose 5-phos

Additional metabolites are identified by their Compound IDs that reference the KEGG database http://www.genome.jp/kegg/