Supplementary information 1 – Almeida et al. Physiological and molecular characterization of yeast cultures pre-adapted for fermentation of lignocellulosic hydrolysate
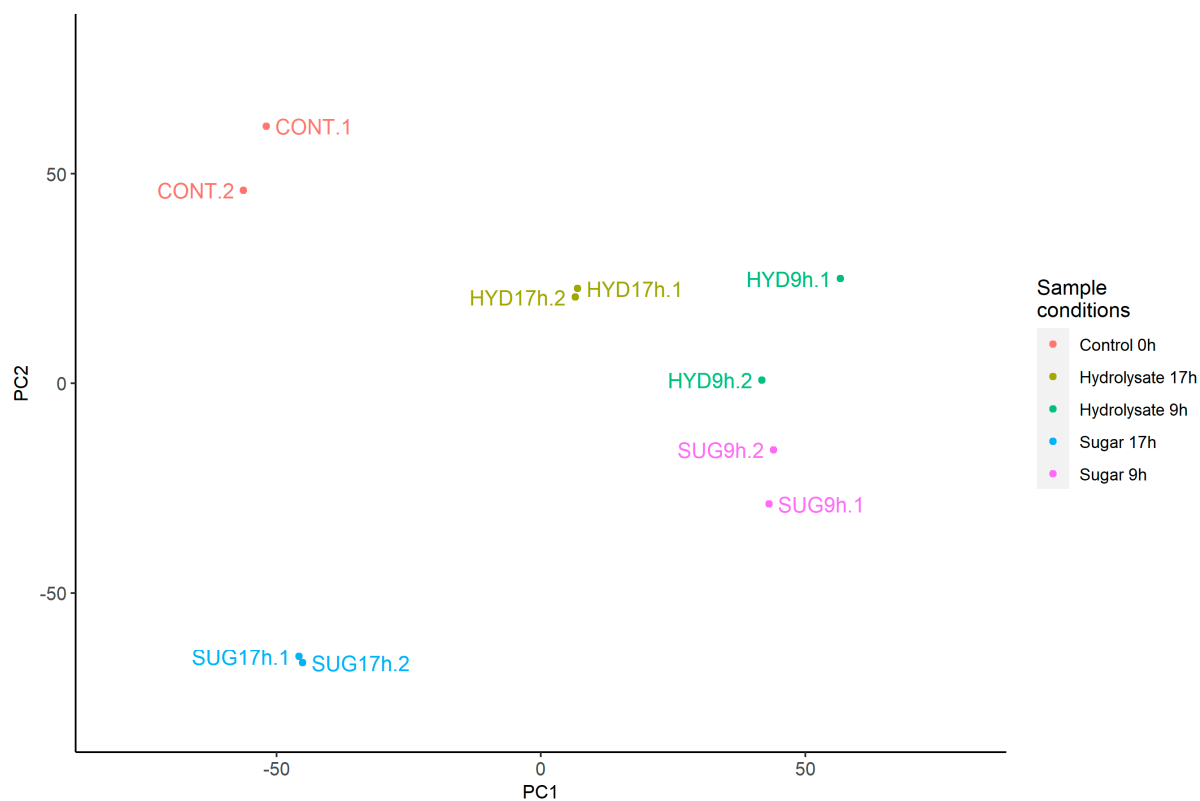

Figure S1. Principal component analysis of the *S. cerevisiae* probes from the 10 microarray samples, after RMA normalization. The biological replicates (.1 and .2) clustered together per sample, which suggest good reproducibility in the experimental workflow. Other trends include how the four hydrolysate samples, and the samples from time point 9h generally clustered together, respectively.
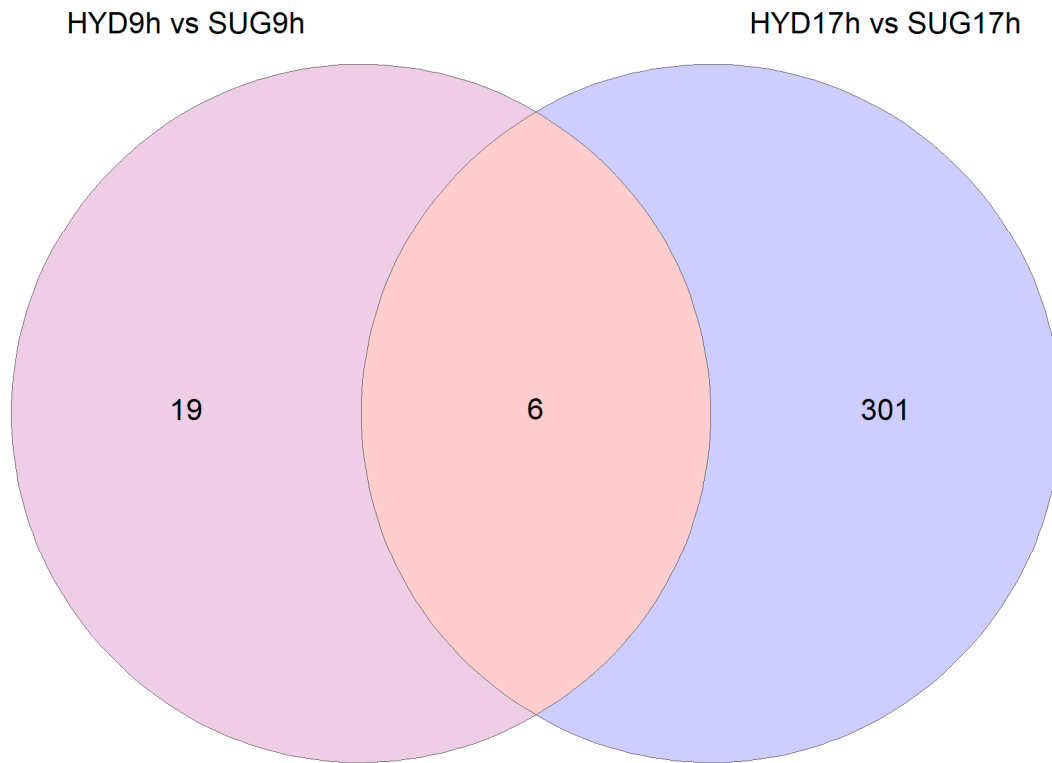
Figure S2. Venn diagram showing the intersection of the significantly differentially expressed genes identified in the 9h and 17h comparisons. Six genes were found to differentially expressed in both comparisons: *YHK8, OYE3, HBN1* were up-regulated in both conditions; *CTR1* and *RCK1* were down-regulated in both conditions. For more details on the gene names, see Table S1 below, and Supplemental Information 2 for the full processed microarray dataset.

Table S1. List of the genes that were found to be significantly up- or down-regulated in hydrolysate as compared to the sugar medium. Genes that were found at both times are highlighted in bold.

Sample	Up-regulated genes			Down-regulated genes		
9h	GAL10	FLR1	YPL278c	**CTR1**	FET4	ZRT1
	GAL7	CUP1-1	ATR	**RCK1**	HXT2	SUL1
	GAL2	PTR2	**YHK8**	AQY1		
	GAL1	YOR389W	**OYE3**			
	AAD4	SNG1	**HBN1**			
	YLR108C	ARN1	**YPR159C-A**			
17h	**YHK8**	STL1	RPC25	YNR071C	TMA108	FRE4
	YBR219C	KRR1	ATF2	MAN2	HXK1	AMA1
	YPR159C-A	KAR1	POP8	PDR18	YOR316C-A	SIP5
	MCH2	KTR5	ERG3	MUP1	IST2	BAG7
	YBL008W-A	CWC21	GCG1	TRA1	YCR100C	TOS1
	AIM33	APC11	YJL107C	CIN5	YNL058C	PLB2
	OYE3	ERG4	SMC2	YOR019W	SPS22	YMR114C
	OYE2	YBR096W	CPT1	NUM1	YBR225W	YGR066C
	FSH1	YJR011C	MKC7	YLR352W	PKH3	NGR1
	UPS2	NRG2	YPL199C	CMR3	PHO89	ASF2
	YBR298C-A	YCR087C-A	DTD1	YOR032W-A	ERV2	TDA1
	HBN1	FBP1	YER158C	PSA1	PAU7	PEX9
	AMF1	NRK1	ERG26	NCW2	RAS1	HHO1
	YGR035C	YGK3	HIS2	YCR101C	CIS3	GSY1
	MAL12	CYC1	DUT1	ASK10	MET30	GNP1
	FET3	HIS6	ADE17	SCW11	MET1	ECM10
	CUZ1	TRR1	MIS1	DIA3	BNA3	JLP1
	MIG2	ADO1	EMC6	SWH1	FLO11	AGP3
	IMA1	EPT1	MPC2	OPT1	NBL1	BOP2
	HAP4	DPB3	YDL157C	FRK1	REC107	ALT2
	HAP3	ETT1	SAM4	APC2	RGS2	FMP48
	YNL217W	YDR210W	LDB18	YNR064C	GEM1	DBP1
	PDR16	TRS33	TPM1	YOR248W	MDS3	CRR1
	YPL034W	YKL033W-A	YIL027C	SPO20	USV1	RNR3
	YGL230C	ATP20	RPS18B	YMR122W-A	YGR130C	CWP1
	POF1	CDA2	APT1	ECM18	GTT3	SHC1
	MRI1	MHF2	ERG27	ACE2	PCA1	**RCK1**
	SDD2	DIB1	GUA1	CTS1	SIM1	**CTR1**
	NUC1	PRO1	JLP2	HOS3	PIR1	
	VPH2	CIR1	NDE1	DSE3	DFG16	
	TDA2	CAF16	DAL3	SSD1		
	ASN1	YCR043C	MCM5			
	POP5	SMI1	ALD6			
	ADH6	YDL085C-A	HPT1			
	YOL029C	CBS1	ACS2			
	LSM5	AAT1	YEF3			
	HRI1	TAD2	YSY6			
	YLR012C	RCE1	HXK2			
	ATX2	MED4	LEU9			
	HMLALPHA1	URM1	LCL2			
	TTI2	MET31	CLA4			
	PRM10	YDR222W	JEM1			
	TIM9	TRM13	TKL1			
	MIX14	SKG6	INO1			
	YPL088W	PAN5	YBL081W			
	NEL1	YLR050C	RPS17B			

SAP4	RIE1	RPL15A			4
PCK1	SMC3	MCM16			
EFM6	COS9	ARG1			
HTL1	HAT1	HIS1			
NMT1	YBL028C	DAS2			
PHM6	APS2	FCY2			
RDH54	YRB1	RKI1			
MEP3	UTP11	SPH1			
IST3	MRS3	RPS26B			
MMT1	BUD7	MCD4			
RPC17	CNM67	CDC45			
FCF2	YMR321C	MNN1			
SDO1	IMP2	FRS1			
REX4	NVJ3	PPT2			
BIT61	PDR12	YMC2			
ACH1	ATP17	RPS22A			
YHI9	MIF2	SEN34			
COS3	LTP1	YHM2			
YCL021W-A	DCD1	PAL1			
GIM3	YCR016W	RPL39			
YIL024C	DUO1	RPS29A			
LSM12	TOH1	RPL41A			
TYR1	PFD1	ECO1			
FLC1	RAD33	HAM1			
YML131W	TRM11	YLR053C			
FTR1	RPC11	BSC2			
AGX1	KTR6				