**Table S1. Known elements of signaling networks associated with TFs with experimentally validated role in stress-induced PCD.** TFs promoting PCD are highlighted in red, TFs supressing PCD are highlighted in blue. Only TFs with experimentally validated role in PCD regulation are presented. The asterisks (\*) indicate direct target genes, OE – overexpressor.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Family** | **TF**  | **Stress Type** | **Upstream regulators relevant to PCD** | **Interacting/Targeted (\*) TFs in PCD context** | **Regulated/Targeted (\*) PCD related genes** | **Consensus target sequence** | **Resources and datasets** |
| NAC | GmNAC81 | ER Stress (Faria et al., 2011; Mendes et al., 2013) |  | GmNAC30 (Mendes et al., 2013) | *VPE*-1\*(Mendes et al., 2013) | TGTGTT(Mendes et al., 2013) | ChIP Assay (Mendes et al., 2013) |
| GmNAC30 | ER Stress (Mendes et al., 2013) |  | GmNAC81 (Mendes et al., 2013) | *VPE*-1\*(Mendes et al., 2013) | TGTGTT(Mendes et al., 2013) | ChIP Assay(Mendes et al., 2013) |
| AtNAC089 | ER Stress(Yang et al., 2014) | bZIP28, bZIP60 (Yang et al., 2014) | NAC094\* (Yang et al., 2014) | *MC5*\*, *BAG6*\* (Yang et al., 2014) |  | ChiP Assay Microarray (*NAC089D-MYC* expressing plants)(Yang et al., 2014) |
| AtNAC008/ SOG1 | Genotoxic Damage (Yoshiyama et al., 2009; Yoshiyama et al., 2014) | ATM, ATR (Yoshiyama et al., 2013) | NAC103, ANAC044\*, ANAC085\*(Ryu et al., 2018; Ogita et al., 2018; Takahashi et al., 2019) | *PLA2A*\*(Bourbousse et al., 2018) | CTT (N)7AAG (Ogita et al., 2018) | Microarray (*sog1-1* plantspost genotoxic treatment);ChIP Assay (Ogita et al., 2018) |
| AtNAC017 | Mitochondrial Stress(Ng et al., 2013; Van Aken and Pogson, 2017) | Unknown rhomboid protease(Ng et al., 2013) | ANAC013\*, ATAF1, ANAC019, ANAC032(Ng et al., 2013) | *AOX1a*\*, *OM66*(Ng et al., 2013; De Clercq et al. 2013);Genes with a cell death related GO term annotation are upregulated in *ANAC017* OE plants (Meng et al., 2019) | CA(C/A)G(Ng et al., 2013) | RNA-seq (*ANAC017* OE and *anac017* KO lines)(Meng et al., 2019);RNA-seq (*rao2-1* and *anac017-2* plants post submergence and desubmergence)(Meng et al., 2020) |
| OsNAC4 | Biotic Stress (Kaneda et al, 2009) |  |  | *OsHSP90*, *IREN*(Kaneda et al., 2009) |  | Microarray (*OsNAC4*-RNAi; control and post *Acidovorax avenae* N1141 inoculation)(Kaneda et al., 2009) |
| AtNAC080 | Biotic Stress(Lee et al., 2017) | *miR164*(Lee et al., 2017) | WKRY40\*, WRKY54\*(Lee et al., 2017) | *LURP1*\*(Lee et al., 2017) | ACAAGCAAC (Lee et al., 2017) | Microarray (*nac4-1* KO and *35S:NAC4* OE plants)(Lee et al., 2017) |
| WRKY | NbWRKY1 | Biotic Stress(Menke et al., 2005) | SIPK(Menke et al., 2005) |  |  | TGAC(Yang et al., 1999; Menke et al., 2005) |  |
| VqWRKY52 | Biotic Stress (Wang et al., 2017) |  |  |  |  |  |
| MYB | AtMYB30 | Biotic Stress (Daniel et al., 1999; Vailleau et al., 2002) | AtsPLA2ɑ, MIEL1, SBT5.2(Froidure et al., 2010; Marino et al., 2013; Serrano et al., 2016) |  | Acyl CoA elongase complex (Raffaele et al., 2008) | GTTTGTT / GTTGTTGT(Li et al., 2009; Mabuchi et al., 2018) | Microarray (*MYB30* OE and *MYB30 anti-sense* plants; control and post *Xcc*147 inoculation)(Raffaele et al., 2008);RNA-Seq (*myb30-2* and *MYB30-*OEplants; control and H2O2 treatment)(Mabuchi et al., 2018) |
| ERF | NbCD1 | Biotic Stress (Nasir et al., 2005) |  |  | *HSR203*, *PR*-*1a*, *PR*-*1b*(Nasir et al., 2005) |  | SuperSAGE (*NbCD1-HA* OE)(Nasir et al., 2005) |
| NtERF3 | Biotic Stress (Ogata et al., 2012) | NtSIPK-NtWRKY1(Ogata et al., 2015) |  |  | GCC Box: TAAGAGCCGCC(Ohme-Takagi and Shinshi, 1995) |  |
| NuMACD1 | Biotic Stress (Mase et al., 2013) |  |  |  | GCC Box: AGCCGCC(Mase et al., 2013) |  |
| AtERF102 | Biotic Stress(Mase et al., 2013) |  |  |  | GCC Box: AGCCGCC(Mase et al., 2013) | Microarray (*ERF102* OE)(Mase et al., 2013) |
| NbERF109 | Salinity(Bahieldin et al., 2016) |  |  | *Bax Inhibitor1* (Bahieldin et al., 2016) | GCC Box: GCCGCC(Cai et al., 2014) |  |
| PhERF2 | Waterlogging (Yin et al., 2019) |  |  |  | ATCTA(Yin et al., 2019) |  |