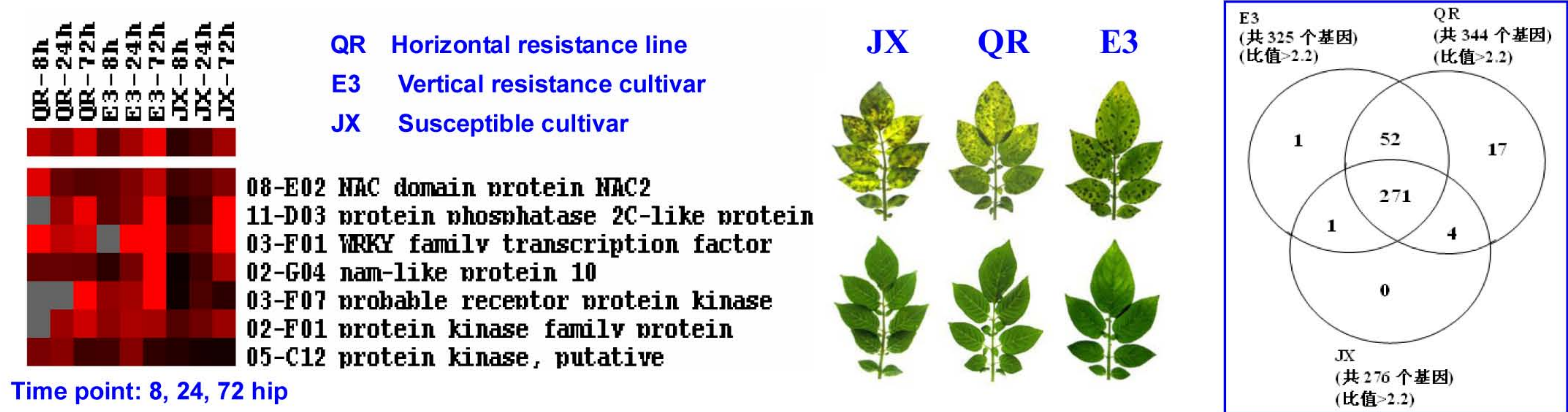


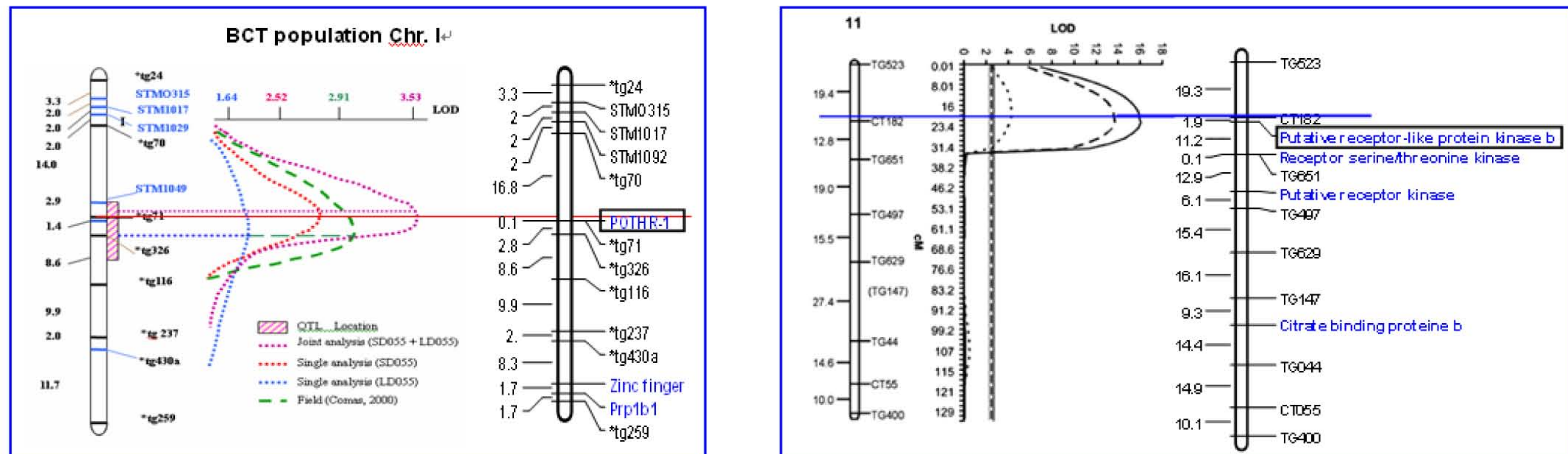
II. Comparing the gene expression profiles in potato cultivars with diverse resistance types (qualitative, quantitative and susceptible)

The majority of genes up-regulated in QR could be induced in E3 and JX. Few changes existed in the category and number of genes among the three resistance types, but obvious differences in expression patterns and transcriptional abundance of many genes were observed. The resistance level is assumed to depend on the special expression of the “genes induced by *P. infestans* specifically”, or the timing of certain genes and/or their expression abundance.



III. Mapping of candidate genes associated with late blight resistance in potato

Many quantitative trait loci (QTL) for late blight resistance have been mapped on several potato populations. At the same time, numerous expressed sequences tags (ESTs) related to late blight resistance have been deposited in databases. In order to screen for putative candidate genes linked to late blight resistance, candidate genes were selected for mapping and investigation of their relationship with quantitative trait loci (QTL) in three diploid potato populations PCC1, BCT, and PD (cooperation with CIP).



IV. Cloning of resistance-related genes and functional characterization

List of cloned genes

序号	登录号	基因名称
1.	AY155669	<i>POTHR-1</i>
2.	AY185207	<i>NPRp27</i> -like
3.	AY704177	Jasmonic acid 2
4.	AY704178	zinc-finger 1
5.	EF093186	zinc-finger 2
6.	EF091874	<i>NAC2</i>
7.	EF091875	<i>ERF3</i>
8.	EF091876	Ras-Related GTP Binding Protein
9.	EF091878	<i>Acre 276</i> -like
10.	EF091877	<i>Acre 132</i> -like
11.	EF411202	<i>Nsk1</i>
12.	EF646263	Ankyrin repeat family protein1
13.	EU049848	Leucine-Rich Repeat Receptor-Like Kinases (RLks)
14.	EU049847	<i>Nam</i> -Like Protein
15.	EF411203	<i>St-PII WRKY1</i>
16.	EU056914	<i>St-PII WRKY2</i>
17.	EU056915	<i>St-PII WRKY3</i>
18.	EU056916	<i>St-PII WRKY4</i>
19.	EU056917	<i>St-PII WRKY5</i>
20.	EU056918	<i>St-PII WRKY6</i>

Virus induced gene silencing



Functional characterization of potato *stNAC2*

