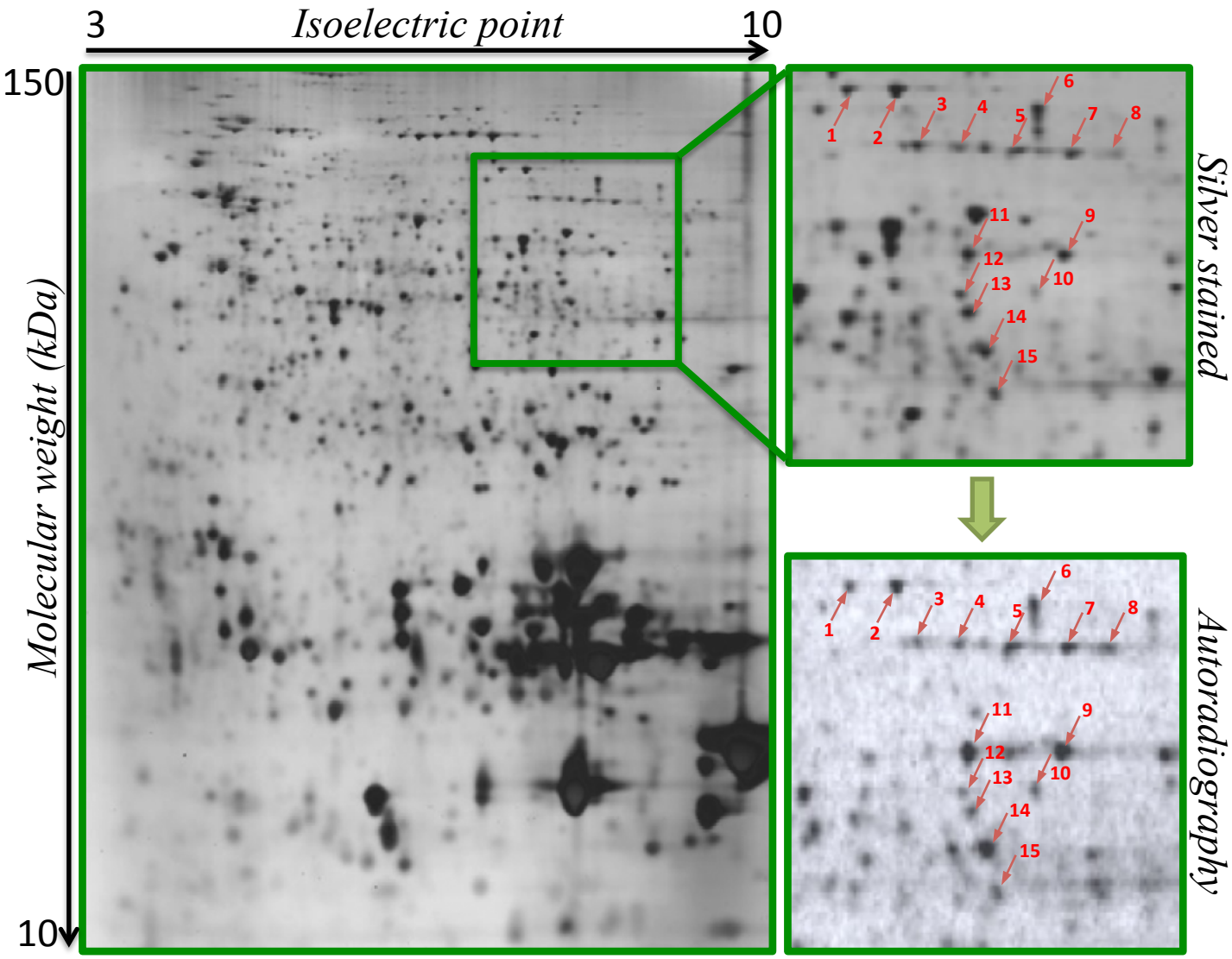
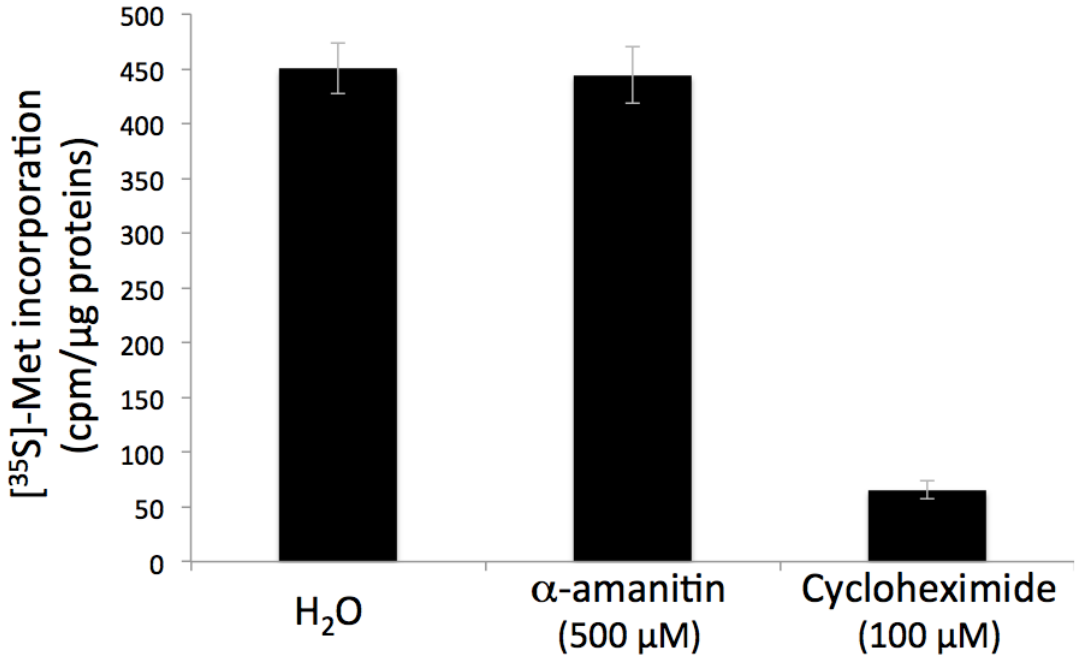


SUPPLEMENTAL FIGURE S1. **Illustration of the correspondences between radiolabeled 2DE protein spots with silver-stained 2DE protein spots in *Arabidopsis* germinating seeds.** In the present case, seeds were imbibed for 24 h with distilled water in the presence of [^{35}S]-Met. Proteins were extracted and then submitted to 2-DE, and the radiolabeled proteins were revealed by phosphorimager analysis.

Incorporation of [^{35}S]-Met in proteins neosynthesized in *Arabidopsis* germinating seeds 24 HAI

	Water	α-amanitin	Cycloheximide
Rep 1	426,42	472,73	55,82
Rep 2	479,28	412,78	74,19
Rep 3	456,48	456,62	69,76
Rep 4	438,30	435,45	61,86
Mean	**450,12**	**444,39**	**65,41**
SD (+/-)	23	26	8



SUPPLEMENTAL FIGURE S2. **Influence of a-amanitin and cycloheximide on the [^{35}S]-Met incorporation into neosynthesized proteins in *Arabidopsis* seeds 24 HAI.** In the present case, seeds were imbibed for 24 h either with distilled water, a-amanitin (500 µM) or cycloheximide (100 µM) in the presence of [^{35}S]-Met. Following incubation, protein extracts were prepared and protein synthesis was measured by TCA precipitation of aliquots of reaction mixtures spotted on Whatmann GF/C filters; after eight washing steps in cold 5% TCA and 0.04 M sodium pyrophosphate and two washing steps in absolute methanol, filters were dried and counted for radioactivity in a liquid scintillation counter.

SUPPLEMENTAL FIGURE S2.
COMMENTS:

The translational activity of germinating seed (24 HAI) has been assessed in the presence of alpha-amanitin as a transcriptional inhibitor or in the presence of cycloheximide as a translation inhibitor. So a new supplemental figure was done (supplemental Fig. S2) to illustrate this point. The translational activity was not affected by alpha-amanitin but a drastic reduction of Met incorporation within germinating seeds was observed in the presence of cycloheximide. By comparison with seeds germinated on water, about 15% of the total translational activity was maintained in the presence of cycloheximide, presumably linked with non-cytoplasmic protein translation (Allorent et al., 2013; Boutry et al., 1984; Demarsy et al., 2012; Ellis, 1977, Law et al., 2012). Moreover, to prevent unspecific protein labeling by free [^{35}S]-Met, seed protein extracts were precipitated by TCA/acetone before 2D electrophoresis separation. In addition, each protein sample correspond to single biological replicate. Three biological replicates were realized per biological condition.

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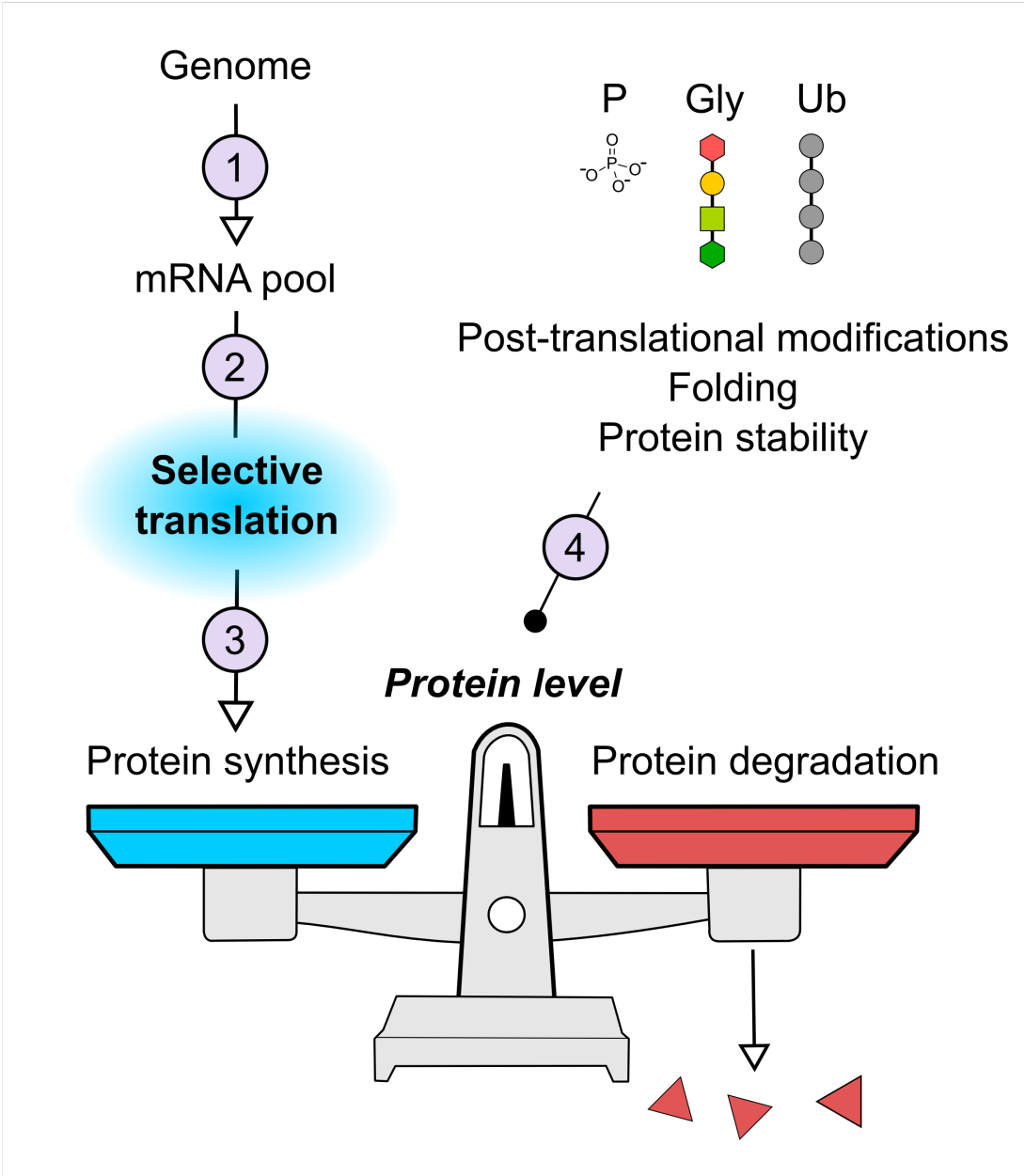

SUPPLEMENTAL FIGURE S3. ***Arabidopsis*** **seed germination is regulated by selective mRNA translation and several transcriptional, post-transcriptional and post-translational mechanisms**

SUPPLEMENTAL FIGURE S3.
COMMENTS:

Control of *Arabidopsis* seed germination has been shown to rely on several mechanisms. First, transcriptional [1] and post-transcriptional [2] regulations have been demonstrated by the isolation of the *reduced dormancy 4* mutant (*rdo4/hub1*) that monoubiquitinates histone H2B and by the isolation of the *reduced dormancy 2* (*rdo2*) mutant that is deficient in a transcript elongation factor TFIIS (1, 2). Then, the present data document that mRNA selective translation emerges as an important regulation level in addition to translational control [3] through, per instance, selective action of cap-binding complex such as eIF(iso)4E (118). Therefore, the final protein level at a given time is the difference between the protein synthesis and degradation through 20S proteasome and N-rule pathway (3). Finally, post-translational [4] modifications (*e.g.* phosphorylation, P; glycosylation, Gly; ubiquitination, Ub), protein folding and protein stabilization can also modulate protein activity.

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