

## Supplementary Tables

Supplementary Table 1: Patients' laboratory values

No.	Sex	Age	Myeloma type	Disease duration	$\beta$ 2m (mg/l)	Albumin (g/dl)	Creatinine (mg/dl)	LDH (U/l)	Cytogenetics
<b><i>Solitary plasmacytoma</i></b>									
1	f	64	solitary plasmacytoma	PD	1.5	4.5	0.84	184	other
2	f	48	solitary plasmacytoma	PD	1.9	4.3	0.80	405	n/a
3	m	31	solitary plasmacytoma	9	1.2	4.8	0.90	148	n/a
4	m	32	solitary plasmacytoma	14	1.2	4.6	0.90	144	n/a
<b><i>Smoldering Multiple Myeloma (SMM)</i></b>									
5	m	68	SMM Ig G $\lambda$	PD	1.3	4.3	0.96	204	n/a
6	m	74	SMM Ig G $\kappa$	43	n/a	3.9	1.10	165	other
7	m	44	SMM IgG $\lambda$	34	1.5	n/a	0.90	155	high risk
8	f	60	SMM Ig G $\kappa$	9	3.3	3.4	0.60	132	other
9	f	65	SMM Ig G $\lambda$	125	2.4	4.6	0.60	153	high risk
<b><i>Multiple Myeloma (primary diagnosis)</i></b>									
10	m	76	Ig G $\kappa$	PD	5.5	4.3	2.11	179	other
11	f	65	Ig A $\kappa$	PD	2.0	6.0	0.67	138	high risk
12	m	54	Ig A $\kappa$	PD	5.1	4.1	1.21	126	other
13	f	56	Ig A $\lambda$	PD	4.7	3.2	0.96	89	other
14	m	48	Ig G $\kappa$	PD	2.7	3.6	0.81	102	other
15	f	74	Ig G $\lambda$	PD	17.8	4.3	2.21	172	high risk
16	m	63	LC $\kappa$	PD	5.1	5.3	0.95	195	high risk
17	m	47	LC $\kappa$	PD	2.5	4.8	0.95	749	high risk
18	m	62	LC $\lambda$	PD	1.5	4.2	0.74	175	n/a
19	m	72	Ig G $\lambda$	PD	9.6	3.8	1.22	166	other
20	f	62	IgA $\kappa$	PD	3.3	3.2	0.92	282	other

<b>21</b>	m	62	Ig G κ	PD	35.7	3.8	4.98	177	n/a
<b>22</b>	f	61	IgG κ	PD	1.7	4.2	0.50	185	other
<b>23</b>	m	37	LC κ	PD	n/a	n/a	0.68	488	n/a

***Multiple Myeloma (re-staging)***

<b>24</b>	f	65	Ig A κ	3	2.3	3.7	0.63	228	high risk
<b>25</b>	m	64	Ig G κ	4	7.1	4.2	1.05	157	other
<b>26</b>	f	60	Ig G κ	120	8.8	3.6	1.60	239	other
<b>27</b>	m	60	Ig A λ	9	8.1	4.3	1.68	3669	high risk
<b>28</b>	m	82	Ig A κ	55	3.5	4.0	1.34	257	high risk
<b>29</b>	m	67	Ig G λ	15	2.4	4.1	1.03	221	high risk
<b>30</b>	m	59	LC κ	7	n/a	4.7	0.91	193	other
<b>31</b>	m	70	Ig G κ	103	5.4	3.6	1.43	193	other
<b>32</b>	f	69	Ig G κ	10	3.2	4.0	0.83	214	high risk
<b>33</b>	f	63	LC κ	32	5.9	4.5	1.14	247	high risk
<b>34</b>	f	64	Ig A κ	6	1.2	3.9	0.57	217	high risk
<b>35</b>	m	56	Ig A κ	32	3.6	3.2	0.73	147	other
<b>36</b>	f	62	Ig G κ	11	1.8	4.4	0.66	177	other
<b>37</b>	f	48	Ig A λ	63	2.0	4.5	0.60	206	n/a
<b>38</b>	m	51	Ig G κ	34	5.2	4.0	0.80	1165	high risk
<b>39</b>	m	59	Ig G κ	37	1.7	4.6	0.84	194	high risk
<b>40</b>	m	59	Ig G κ	4	1.9	3.8	0.89	168	n/a
<b>41</b>	m	65	Ig G κ	89	3.2	4.9	0.87	227	n/a
<b>42</b>	f	65	Ig A κ	12	6.4	4.0	0.75	324	high risk
<b>43</b>	f	39	Ig G λ	58	n/a	4.8	0.80	297	high risk
<b>44</b>	f	68	Ig G λ	31	2.5	3.9	0.80	169	high risk
<b>45</b>	m	73	Ig G κ	72	17.7	4.9	1.84	384	n/a
<b>46</b>	m	62	Ig G κ	199	8.4	3.3	1.29	573	n/a

<b>47</b>	m	62	LC λ	47	1.8	4.4	1.10	174	high risk
<b>48</b>	f	53	LC κ	122	2.4	4.8	1.19	270	other
<b>49</b>	m	63	LC λ	6	1.5	4.4	0.66	207	other
<b>50</b>	f	63	Ig G κ	22	5.7	3.9	0.78	159	other
<b>51</b>	m	63	Ig G κ	86	2.1	4.0	0.81	233	n/a
<b>52</b>	m	60	LC λ	22	3.7	3.9	0.89	184	high risk
<b>53</b>	f	63	LC λ	23	2.3	3.6	0.90	203	n/a
<b>54</b>	f	49	Ig A λ	72	n/a	4.3	0.58	229	n/a
<b>55</b>	f	40	LC κ	39	1.8	4.2	0.75	152	n/a
<b>56</b>	f	46	Ig G λ	34	1.7	3.9	0.84	264	other
<b>57</b>	m	64	Ig G λ	64	3.7	3.7	1.22	159	high risk
<b>58</b>	m	48	Ig G λ	10	n/a	4.8	0.79	312	n/a
<b>59</b>	m	62	Ig G κ	109	2.1	4.4	1.21	160	other
<b>60</b>	m	74	Ig A λ	83	34.9	3.2	7.95	675	other
<b>61</b>	m	61	LC κ	23	3.2	4.3	0.88	387	high risk
<b>62</b>	f	62	Ig G κ	39	n/a	3.8	1.04	172	high risk
<b>63</b>	f	66	LC λ	10	n/a	4.4	1.46	230	other
<b>64</b>	m	41	asecretory	19	2.2	4.8	0.89	160	other
<b>65</b>	f	57	LC κ	64	2.3	4.0	0.40	237	high risk
<b>66</b>	m	62	Ig G κ	122	2.3	3.4	1.00	n/a	high risk
<b>67</b>	f	61	Ig G κ	124	3.6	4.4	0.70	201	other
<b>68</b>	m	44	Ig G κ	3	2.3	4.3	0.90	156	other
<b>69</b>	f	65	LC λ	29	5.6	3.7	0.85	n/a	n/a
<b>70</b>	m	63	Ig G κ	44	n/a	n/a	1.30	n/a	other
<b>71</b>	m	73	Ig G κ	106	2.0	3.9	0.80	341	n/a
<b>72</b>	f	65	LC κ	47	1.7	4.0	0.60	164	other
<b>73</b>	m	46	Ig G κ	6	2.4	4.4	0.90	160	other
<b>74</b>	f	68	Ig G κ	46	n/a	4.4	0.90	385	n/a

<b>75</b>	m	51	Ig G κ	24	1.8	4.6	0.90	n/a	n/a
<b>76</b>	m	50	Ig G κ	32	3.4	3.8	0.80	180	other
<b>77</b>	m	56	Ig D λ	40	3.3	4.9	1.00	162	n/a
<b>78</b>	f	48	Ig G κ	57	1.7	3.9	0.70	157	n/a

Supplementary Table 2: Diagnostic Performance of MET and FDG

<b>N=78</b>	<b>MET</b>	<b>FDG</b>	<b>p-value</b>
<b>patient-based analysis</b>			
<i>PET-positive patients</i>	75.6%	60.3%	<0.01
<i>appendicular skeleton</i>	66.7%	48.7%	<0.01
<i>EMD</i>	19.2%	16.7%	n.s.
<i>soft tissue involvement</i>	11.5%	9.0%	n.s.
<i>LN involvement</i>	10.3%	9.0%	n.s.
<i>lung involvement</i>	2.6%	2.6%	n.s.
<b>lesion-based analysis</b>			
<i>&lt;20 FL</i>	9.0%	26.9%	<0.01
<i>&gt; 20 FL</i>	66.7%	33.3%	<0.01
<b>sub-group analysis &gt;20 FL</b>			
<i>&gt;20 FL</i>	14.1%	14.1%	n.s.
<i>&gt;50 FL</i>	10.3%	5.1%	n.s.
<i>&gt;100 FL</i>	42.3%	14.1%	<0.01
<b>total no. EMD FL</b>	72	44	<0.01

Given are the positive findings of the patient-based and lesion-based analysis of MET- and FDG-PET/CT in a total cohort of 78 patients, respectively. EMD = extramedullary disease; FL = focal lesion; LN = lymph node; n.s. = not significant