

Table S1 Summary of included studies

References	Year	Country/region	N	Age (years)	Gender	Tumor type	Tumor stage	Cytokines	Assessment of sarcopenia
Scheede-Bergdahl <i>et al.</i> (25)	2012	Canada	83	Mean $\pm$ SD: 61.8 $\pm$ 12.9	56.6% male; 43.4% female	Mixed	III–IV	IL-1 $\beta$ , IL-6, IL-8, and TNF- $\alpha$	DXA
Reisinger <i>et al.</i> (32)	2016	The Netherlands	87	Mean $\pm$ SD: 65.6 $\pm$ 11.9	64% male; 36% female	CRC	I–IV	IL-6	CT scan
He <i>et al.</i> (30)	2018	China	125	Median (range): 59 (19–87)	61.1% male; 39.9% female	CRC	I–III	CRC: IL-1 $\alpha$ , IL-1 $\beta$ , IL-1RA, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-13, IL-15, IL-17, IL-12 P40, IL-12 P70, EGF, IFN $\alpha$ -2, IFN $\gamma$ , IP-10, MCP-1, MCP-3, MIP-1 $\alpha$ , MIP-1 $\beta$ , TNF- $\alpha$ , TNF $\beta$ , VEGF, FGF-2, TGF- $\alpha$ , FIT-3L, fractalkine, GRO, MDC, sCD40L, and sIL-2R $\alpha$	CT scan
Hou <i>et al.</i> (27)	2018	Taiwan	110	Median (range): 66 (37–85)	61.6% male; 38.4% female	Pancreatic	I–IV	IL-1 $\beta$ , IL-6, IL-8, and TNF- $\alpha$	CT scan
Kays <i>et al.</i> (23)	2020	USA	217	Mean $\pm$ SD: 59.65 $\pm$ 12.46	Not specified	CCRCC	I–IV	IL-6	CT scan
Hu <i>et al.</i> (28)	2021	Taiwan	114	Mean $\pm$ SD: 63.2 $\pm$ 12.8	60% male; 40% female	CRC	I–IV	IL-23	CT scan
Tenuta <i>et al.</i> (26)	2021	Italy	47	Median (IQR): 67 (61–74)	57.4% male; 42.6% female	NSCLC	IV	IL-6, TNF- $\alpha$ and TGF- $\alpha$	DXA
Aro <i>et al.</i> (29)	2022	Finland	222	$\geq$ 70 (57.2%); <70 (42.8%)	52.7% male; 47.3% female	CRC	I–IV	IL-1R1, IL-4, IL-6, IL-7, CXCL8, IL-9, IL-12 P70, IFN $\gamma$ , CXCL10, CCL2, CCL4, CCL11, and PDGF-BB	CT scan
Dalbeni <i>et al.</i> (22)	2023	Italy	93	Mean $\pm$ SD: 70 $\pm$ 15	83.8% male; 16.2% female	HCC	I–IV	IL-6	CT scan
Lipshitz <i>et al.</i> (24)	2023	South Africa	40	Mean $\pm$ SD: 64.03 $\pm$ 12.63	65% male; 35% female	Mixed tumors	IV	IL-6, IL-8 and TNF- $\alpha$	BIA, HGS

Total number of patients: 1,138. SD, standard deviation; IL-1 $\beta$ , interleukin-1beta; IL-6, interleukin-6; IL-8, interleukin-8; TNF- $\alpha$ , tumor necrosis factor-alpha; DXA, dual-energy X-ray absorptiometry; CRC, colorectal cancer; CT, computed tomography; IL-1 $\alpha$ , interleukin-1alpha; IL-1RA, interleukin-1 receptor antagonist; IL-2, interleukin-2; IL-3, interleukin-3; IL-4, interleukin-4; IL-5, interleukin-5; IL-7, interleukin-7; IL-9, interleukin-9; IL-10, interleukin-10; IL-13, interleukin-13; IL-15, interleukin-15; IL-17, interleukin-17; IL-12 P40, interleukin-12 p40; IL-12 P70, interleukin-12 p70; EGF, epidermal growth factor; IFN $\alpha$ -2, interferon alpha-2; IFN $\gamma$ , interferon gamma; IP-10, interferon-gamma induced protein 10; MCP-1, monocyte chemoattractant protein-1; MCP-3, monocyte chemoattractant protein-3; MIP-1 $\alpha$ , macrophage inflammatory protein-1alpha; MIP-1 $\beta$ , macrophage inflammatory protein-1beta; TNF $\beta$ , tumor necrosis factor beta; VEGF, vascular endothelial growth factor; FGF-2, fibroblast growth factor-2; TGF- $\alpha$ , tumor growth factor alpha; FIT-3L, FMS-like tyrosine kinase 3 ligand; GRO, growth-related oncogene; MDC, macrophage-derived chemokine; sCD40L, soluble CD40 ligand; sIL-2R $\alpha$ , soluble interleukin-2 receptor alpha; CCRCC, clear cell renal carcinoma; IL-23, interleukin-23; IQR, interquartile range; NSCLC, non-small cell lung cancer; IL-1R1, interleukin 1 receptor type I; CXCL8, C-X-C motif chemokine ligand 8; CXCL10, C-X-C motif chemokine ligand 10; CCL2, chemokine ligand 2; CCL4, chemokine ligand 4; CCL11, chemokine ligand 11; PDGF-BB, platelet-derived growth factor subunit B; HCC, hepatocellular carcinoma; BIA, bioimpedance analysis; HGS, hand grip strength.