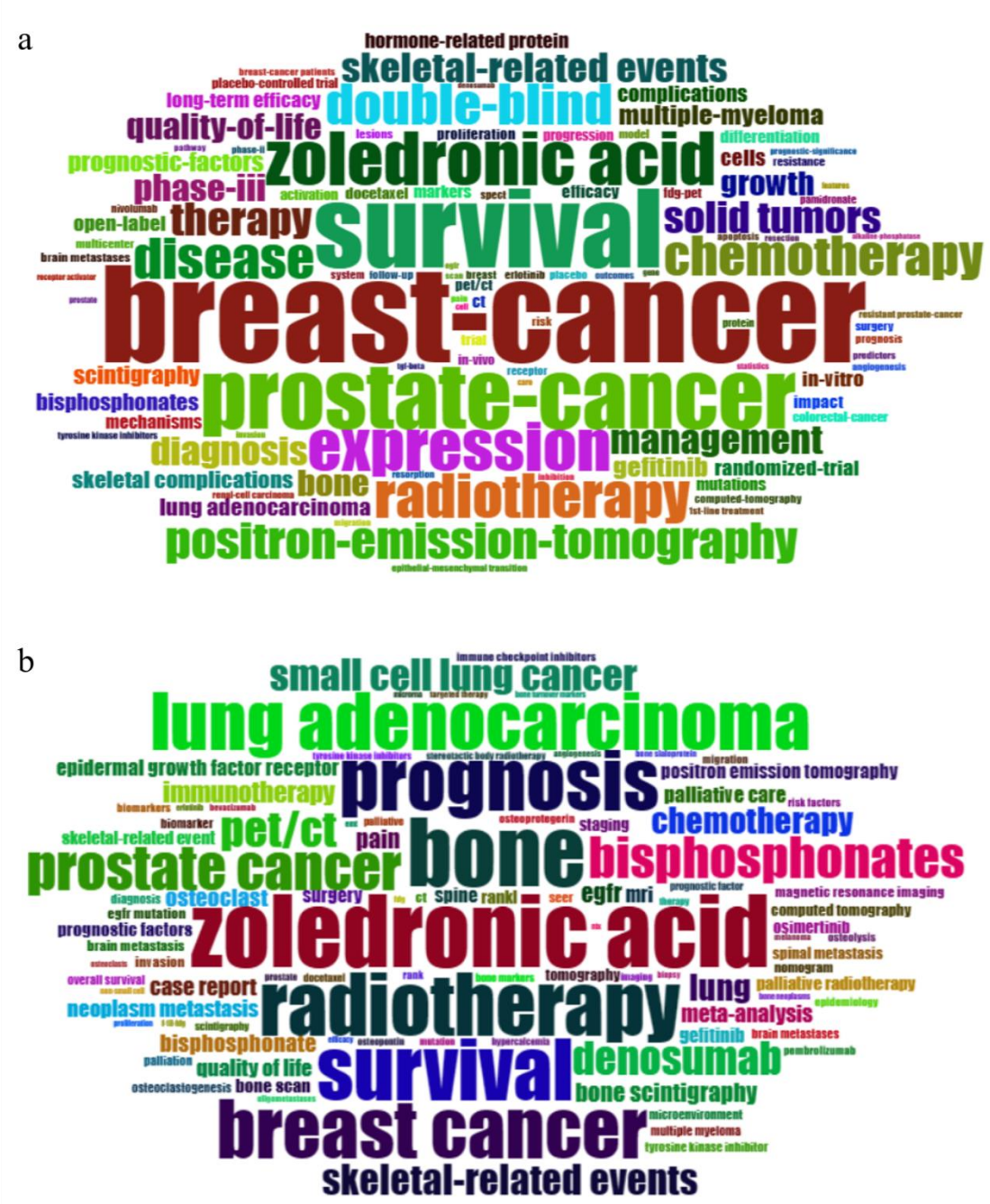
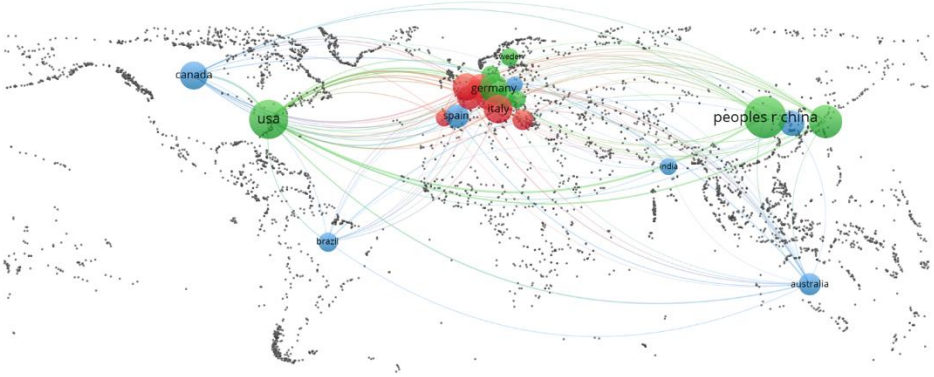


Supplementary Figure 1 Cloud map of the high-frequency keywords in the articles on LCBM. A: KeyWords Plus; B: Authors' keywords. The larger the phrases of *a* and *b*, the more frequently they appear. Phrases considered irrelevant to the present study were removed from this figure.

a

VOSviewer

b



VOSviewer

Supplementary Figure 2 Network diagram of major cooperative relationships in the field of LCBM. A: Research institution level; B: Country/region level.

Supplementary Table 1 Top 100 KeyWords Plus keywords from articles on LCBM

Terms	Frequency
Breast cancer	346
survival	280
prostate cancer	236
zoledronic acid	189
expression	175
radiotherapy	156
disease	147
double-blind	144
chemotherapy	141
positron emission tomography	130
therapy	118
solid tumors	111
skeletal-related events	107
management	103
diagnosis	102
phase III	96
bone	92
quality of life	92
growth	86
gefitinib	72
multiple myeloma	72
prognostic factors	67
scintigraphy	64
lung adenocarcinoma	62
skeletal complications	62
bisphosphonates	60

cells	59
complications	58
randomized trial	56
in vitro	55
open-label	55
long-term efficacy	54
hormone-related protein	53
mechanisms	48
efficacy	46
impact	46
CT	44
differentiation	44
markers	44
mutations	44
docetaxel	41
proliferation	40
PET/CT	39
Trial	39
activation	37
progression	37
in vivo	35
colorectal cancer	34
FDG-PET	34
placebo-controlled trial	34
brain metastases	33
risk	33
lesions	32
multicenter	32
model	31

resistance	31
surgery	31
breast	30
computed tomography	30
erlotinib	30
follow-up	30
placebo	30
prognosis	30
receptor	30
system	30
SPECT	29
nivolumab	28
pamidronate	28
protein	28
first-line treatment	27
apoptosis	27
breast cancer patients	27
phase II	26
predictors	26
resistant prostate cancer	26
resorption	26
angiogenesis	25
epithelial-mesenchymal transition	25
outcomes	25
renal cell carcinoma	25
tyrosine kinase inhibitors	25
inhibition	24
migration	24
pain	24

pathway	24
scan	24
prognostic significance	23
resection	23
cell	22
EGFR	22
invasion	22
statistics	22
TGF-beta	22
care	21
features	21
gene	21
prostate	21
receptor activator	21
alkaline phosphatase	20
denosumab	20

Supplementary Table 2 Top 100 author keywords from articles on LCBM

Terms	Frequency
non-small cell lung cancer (NSCLC)	258
zoledronic acid	98
bone	92
radiotherapy	84
survival	83
prognosis	82
breast cancer	80
lung adenocarcinoma	78
prostate cancer	61
bisphosphonates	56
PET/CT	49
denosumab	46
small cell lung cancer	43
skeletal-related events	42
chemotherapy	36
lung	36
immunotherapy	28
bone scintigraphy	26
EGFR	26
pain	26
bisphosphonate	25
osteoclast	25
case report	24
meta-analysis	24
neoplasm metastasis	23
quality of life	23
epidermal growth factor receptor	22

palliative care	22
MRI	21
gefitinib	20
positron emission tomography	20
spine	20
surgery	20
bone scan	19
prognostic factors	19
palliative radiotherapy	18
RANKL	18
skeletal-related event	18
osimertinib	17
staging	17
computed tomography	16
spinal metastasis	16
tomography	16
brain metastasis	15
CT	15
EGFR mutation	15
invasion	15
magnetic resonance imaging	15
nomogram	14
SEER	14
biomarker	13
brain metastases	13
diagnosis	13
microenvironment	13
multiple myeloma	13
osteoclastogenesis	13

overall survival	13
palliation	13
tyrosine kinase inhibitor	13
biomarkers	12
epidemiology	12
immune checkpoint inhibitors	12
migration	12
osteolysis	12
osteoprotegerin	12
pembrolizumab	12
RANK	12
risk factors	12
bone markers	11
docetaxel	11
palliative	11
prognostic factor	11
scintigraphy	11
hypercalcemia	10
imaging	10
mutation	10
osteopontin	10
prostate	10
stereotactic body radiotherapy	10
therapy	10
tyrosine kinase inhibitors	10
angiogenesis	9
bevacizumab	9
biopsy	9
bone sialoprotein	9

FDG	9
melanoma	9
oligometastases	9
targeted therapy	9
bone neoplasms	8
bone turnover markers	8
efficacy	8
EMT	8
erlotinib	8
F-18-FDG	8
microrna	8
non-small cell	8
NTX	8
osteoclasts	8
proliferation	8