### Supplementary Table 1. Search strategy

| # | Medline via Pubmed | EMBASE via Ovid |
|---|-------------------|-----------------|
| 1 | "Wearable electronic device"[MESH] OR wearable electronic device*[tiab] OR wearable device*[tiab] OR wearable technolog*[tiab] OR wearable sensor*[tiab] OR wearable biosensor*[tiab] OR wearable monitor*[tiab] OR wireless sensor*[tiab] OR wireless biosensor*[tiab] OR wireless electronic device*[tiab] OR Wireless device*[tiab] OR wireless technolog*[tiab] OR wireless monitor*[tiab] OR wireless electronic device*[tiab] OR wireless technolog*[tiab] OR wireless monitor*[tiab] OR wearable technolog*[tiab] OR wearable sensor*[tiab] OR wearable monitor*[tiab] OR wireless sensor*[tiab] OR wireless technolog*[tiab] OR wireless monitor*[tiab] OR fitness monitoring*[tiab] OR activity monitoring*[tiab] OR activity tracker*[tiab] OR activity monitor*[tiab] OR fitness tracker*[tiab] OR fitness monitoring*[tiab] OR smartwatch*[tiab] OR fitbit*[tiab] OR apple watch*[tiab] OR Jawbone*[tiab] OR Pebble*[tiab] OR pedometer*[tiab] OR accelerometer*[tiab] OR Actigraph*[tiab] OR remote monitor*[tiab] OR ambulatory monitor*[tiab] OR outpatient monitor*[tiab] OR activity tracker*[tiab] OR patch sensor*[tiab] OR skin sensor*[tiab] OR skin biosensor*[tiab] OR smartphone*[tiab] OR Iphone*[tiab] OR Android*[tiab] | exp accelerometer/ or exp pedometer/ or exp activity tracker/ or exp smartphone/ or exp electronic device/ or (wearable electronic device* or wearable device* or wearable technolog* or wearable sensor* or wearable biosensor* or wearable monitor* or wireless sensor* or wireless biosensor* or wireless electronic device* or wireless technolog* or wireless monitor* or electronic skin or activity tracker* or activity monitor* or fitness tracker* or fitness monitor* or smartwatch* or fitbit* or apple watch* or Jawbone* or Pebble* or pedometer* or accelerometer* or Actigraph* or remote monitor* or ambulatory monitor* or outpatient monitor* or activity tracker* or patch sensor* or skin sensor* or skin biosensor* or smartphone* or Iphone or Android).ti,ab,kw. |
| 2 | "Neoplasms"[Mesh] OR cancer*[sb] OR oncolog*[tiab] OR cancer*[tiab] OR neoplas*[tiab] OR tumour*[tiab] OR tumor*[tiab] OR tumors*[tiab] OR carcinom*[tiab] OR melanom*[tiab] OR lymphom*[tiab] OR leukemia*[tiab] OR malignan*[tiab] OR metastas*[tiab] OR carcinogen*[tiab] OR oncogen*[tiab] OR anticarcinogen*[tiab] OR sarcoma*[tiab] OR precancerous*[tiab] OR paraneoplastic*[tiab] OR neuroma*[tiab] OR blastoma*[tiab] OR meningioma*[tiab] OR lymphangiomyoma*[tiab] OR lymphangiosarcoma*[tiab] OR hodgkin disease*[tiab] OR plasmacytoma*[tiab] OR carcinosarcoma*[tiab] OR hepatoblastoma*[tiab] OR mesenchymoma*[tiab] OR chordoma*[tiab] OR germinoma*[tiab] OR gonadoblastoma*[tiab] OR mesonephroma*[tiab] OR teratoma*[tiab] OR teratocarcinoma*[tiab] | exp oncology/ or exp neoplasm/ or (oncolog* or cancer* or neoplas* or tumour* or tumor or tumors or carcinom* or melanom* or lymphom* or leukemia* or malignan* or metastas* or carcinogen* or oncogen* or anticarcinogen* or sarcoma* or precancerous or paraneoplastic or neuroma* or blastoma* or meningioma* or lymphangiomyoma* or lymphangiosarcoma* or hodgkin disease* or plasmacytoma* or carcinosarcoma* or hepatoblastoma* or mesenchymoma* or chordoma* or germinoma* or gonadoblastoma* or mesonephroma* or teratoma* or teratocarcinoma*).ti,ab,kw. |
| 3 | "Exercise"[Mesh] OR "Walking"[Mesh] OR Physical activit*[tiab] OR activity monitor*[tiab] OR daily activit*[tiab] OR activity data*[tiab] OR activity metric*[tiab] OR exercis*[tiab] OR step count*[tiab] OR counted step*[tiab] OR steps taken*[tiab] OR taken steps*[tiab] OR taken step*[tiab] OR steps per*[tiab] OR count per*[tiab] OR accelerometer*[tiab] OR pedometer*[tiab] OR MVPA*[tiab] OR sedentar*[tiab] OR immobility*[tiab] OR motor activit*[tiab] OR daily steps*[tiab] OR weekly steps*[tiab] OR daily step count*[tiab] OR weekly step count*[tiab] OR walk*[tiab] | exp physical activity/ or (Physical activit* or activity monitor* or daily activit* or activity data or activity metric* or exercis* or step count* or counted step* or steps taken or taken steps or per or step per or accelerometer* or pedometer* or MVPA or sedentar* or immobility* or motor activit* or daily steps* or weekly steps* or daily step count or weekly step count or walk*).ti,ab,kw. |
| 4 | #1 AND #2 AND #3 | 1 and 2 and 3 |
| 5 | (#4) AND English [Language] | limit 4 to conference abstract status |
| 6 | | 4 not 5 |
| 7 | | limit 6 to (english language) |
| Item | Description | Explanation | Topic |
|------|-------------|-------------|-------|
| **Study participation** | | | |
| A | The sampling frame and recruitment are adequately described | Clear description of recruitment period, setting, and geographic location | I |
| B | Inclusion and exclusion criteria are adequately described | clear definitions provided for inclusion and exclusion criteria | I |
| C | The baseline study sample (participants) are adequately described for key characteristics | At least: age, gender, tumor type, stage, treatment, comorbidities | I |
| D | There is adequate participation in the study by eligible patients (>80%) or differences between responders and non-responders is non-selective | attrition analyses were performed and showed no significant differences between baseline study sample and population of eligible subject | V/P |
| **Study attrition** | | | |
| E | Number of patients included in the analysis ≥ 100 | self-explanatory | V/P |
| F | Proportion of study sample completing the study and providing outcome data is adequate (> 80%) or differences between patients with and without outcome data is non-selective | attrition analyses were performed and showed no significant differences between patients with and without outcome data | V/P |
| **Physical activity measurement** | | | |
| G | The reported variables for physical activity and sedentary behavior are continuous or appropriate cut-points are used | cut-points are clearly defined, not data-dependent, and have established validity in comparable populations | V/P |
| H | The used device and wear-time protocol have established validity for reported physical activity variables | Validation studies have been published for the used devices and wear-time protocols in comparable populations | V/P |
| I | Appropriate methods are used for dealing with missing physical activity data | Adequate imputation techniques were used to replace missing physical activity data | V/P |
| **Performance status measurement** | | | |
| J | Performance status is clearly defined and measured with a valid and reliable tool | healthcare professional-assessed ECOG-PS or KPS score | V/P |
| **Confounding measurement and account** | | | |
| K | Important potential confounders are measured and choice of confounders is adjusted for | self-explanatory | I |
| L | Important potential confounders are accounted for in the analysis | Results are adjusted for sedentary behavior and/or physical activity | V/P |
| **Analysis** | | | |
| M | The statistical analysis is clearly described and appropriate | self-explanatory | V/P |
| N | Outcomes are sufficiently presented (i.e. point estimates and measures of variability) | self-explanatory | I |
| O | Appropriate multivariable analysis is used | The number of samples is at least 10 times the number of independent variables | V/P |

I, Informativeness; V, validity; P, precision.