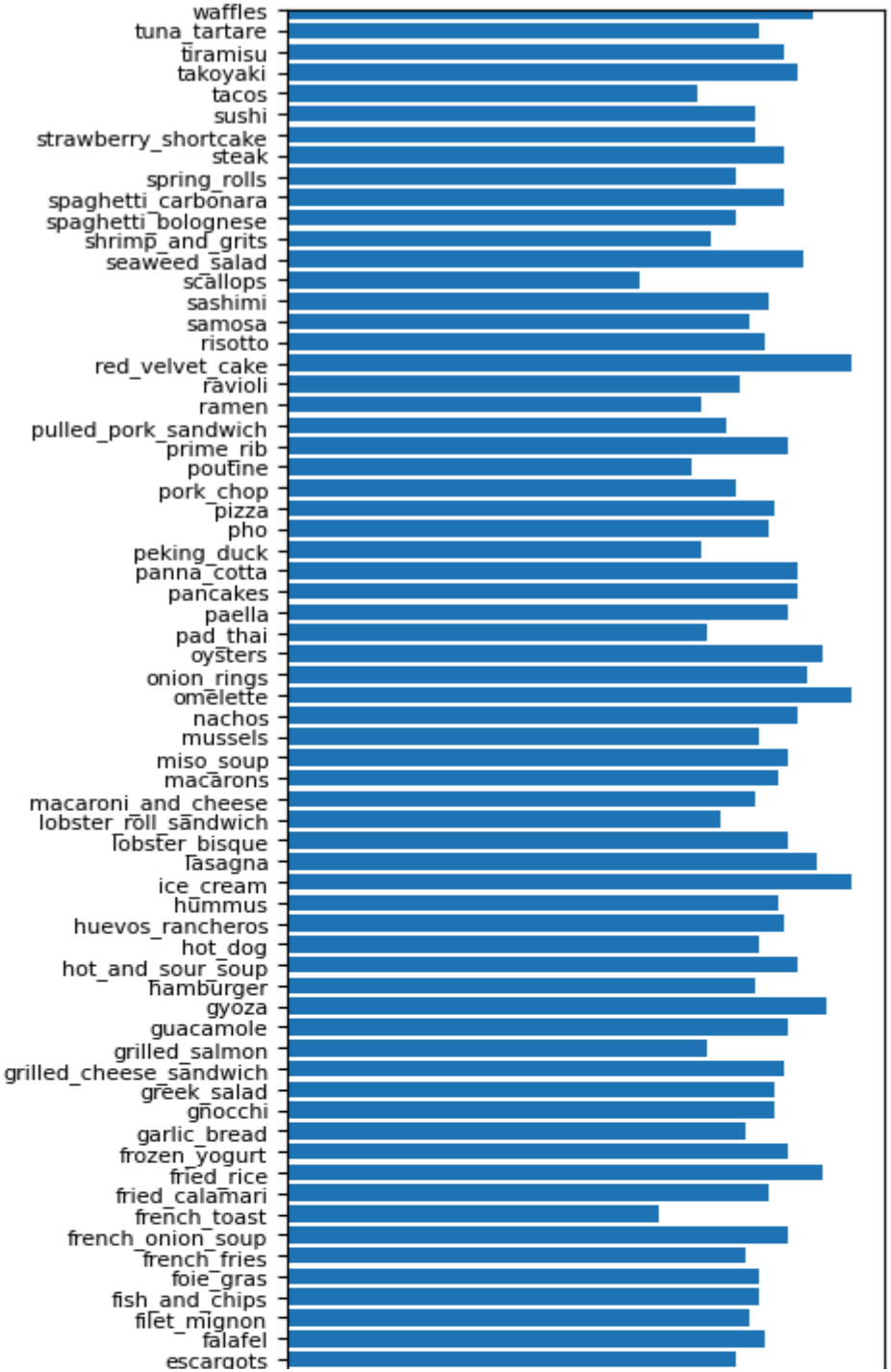
In [1]:

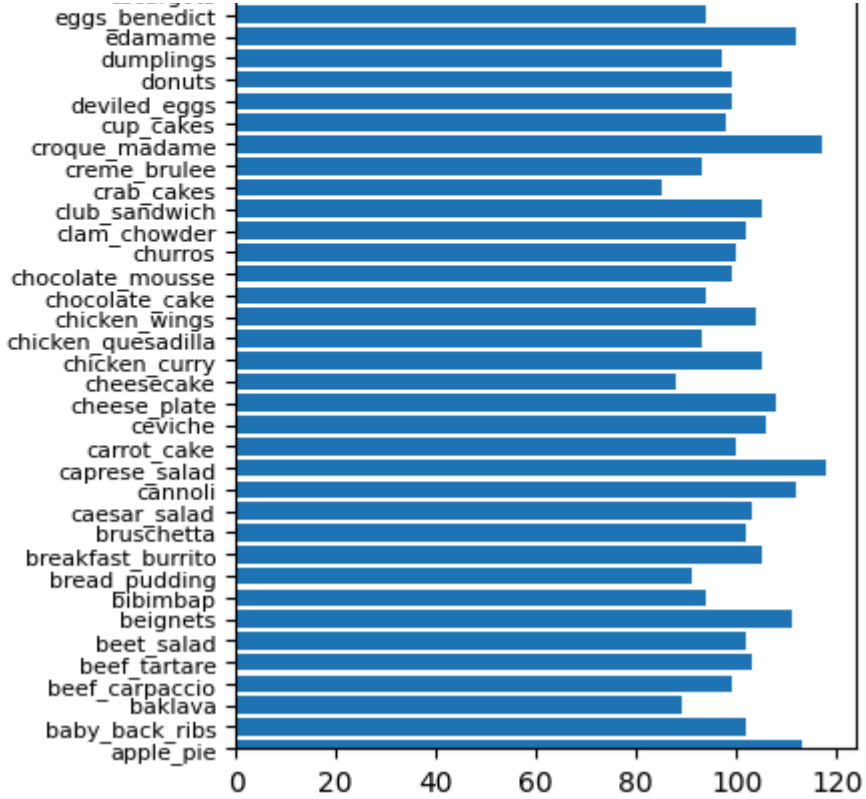
```
import h5py
import os
import matplotlib.pyplot as plt
import numpy as np
%matplotlib inline
```

In [6]:

```
import h5py
import numpy as np
import matplotlib.pyplot as plt

sample_path = (r"D:\Food\food_c101_n10099_r64x64x3.h5")

with h5py.File(sample_path, 'r') as n_file:
    print('Data Size:', n_file['images'].shape)
    im_label = n_file['category'][:]
    label_names = [x.decode() for x in n_file['category_names'][:]]

    fig, (ax1) = plt.subplots(1, 1, figsize=(4, 14))

    v_sum = np.sum(im_label, 0)
    x_coord = np.arange(im_label.shape[1])

    ax1.barh(x_coord, v_sum)

    out_ticks = [(c_x, c_label) for c_sum, c_x, c_label in zip(v_sum, x_coord, label_names) if c_sum >
    ax1.set_yticks([c_x for c_x, c_label in out_ticks])
    _ = ax1.set_yticklabels([c_label for c_x, c_label in out_ticks], rotation=0, fontsize=8)
    ax1.set_ylim(0, x_coord.max())
    plt.show()
```

```
Data Size: (10099, 64, 64, 3)
```


waffles
tuna_tartare
tiramisu
takoyaki
tacos
sushi
strawberry_shortcake
steak
spring_rolls
spaghetti_carbonara
spaghetti_bolognese
shrimp_and_grits
seaweed_salad
scallops
sashimi
samosa
risotto
red_velvet_cake
ravioli
ramen
pulled_pork_sandwich
prime_rib
poutine
pork_chop
pizza
pho
peking_duck
panna_cotta
pancakes
paella
pad_thai
oysters
onion_rings
omelette
nachos
mussels
miso_soup
macarons
macaroni_and_cheese
lobster_roll_sandwich
lobster_bisque
lasagna
ice_cream
hummus
huevos_rancheros
hot_dog
hot_and_sour_soup
hamburger
gyoza
guacamole
grilled_salmon
grilled_cheese_sandwich
greek_salad
gnocchi
garlic_bread
frozen_yogurt
fried_rice
fried_calamari
french_toast
french_onion_soup
french_fries
foie_gras
fish_and_chips
filet_mignon
falafel
escargots

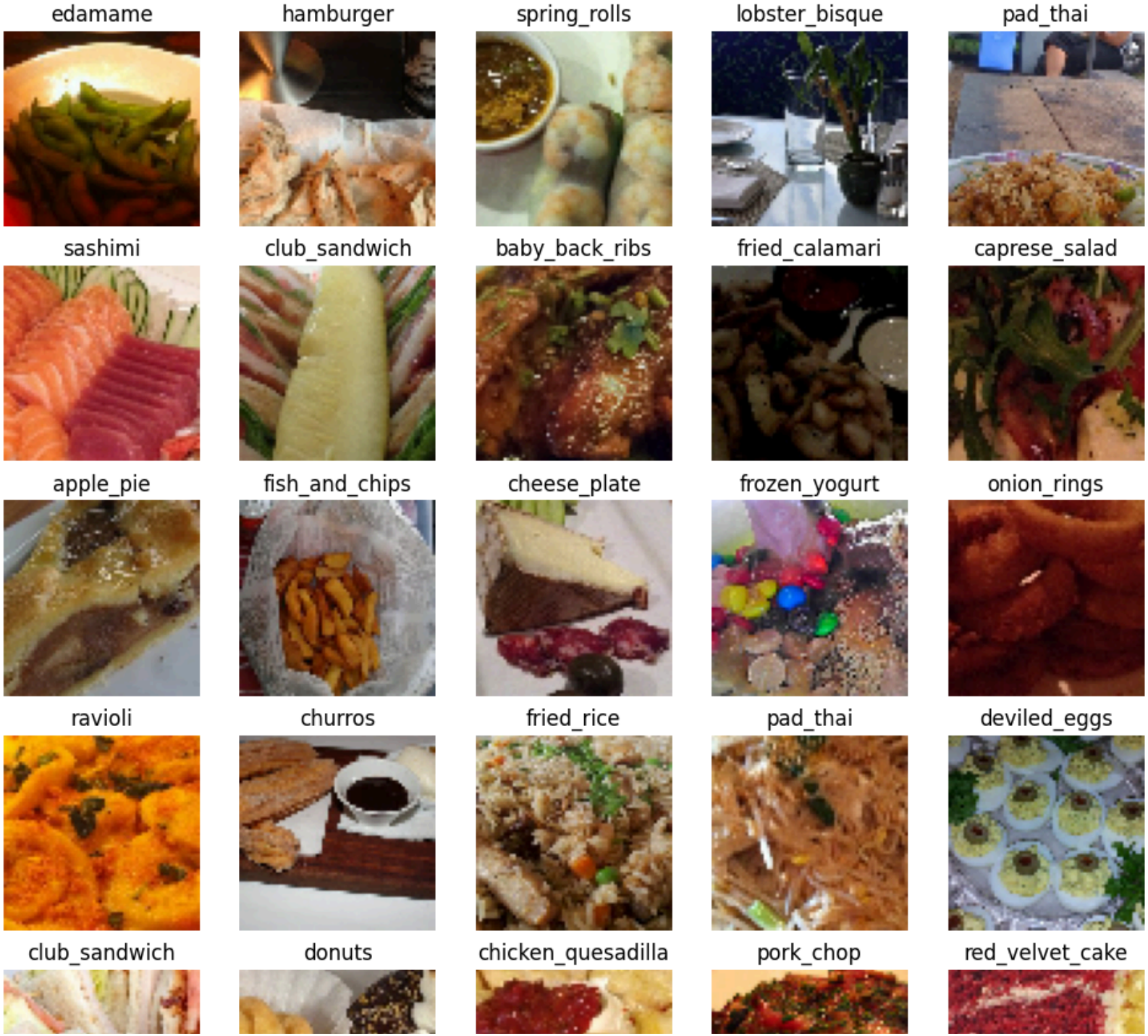


In [8]:

```
sample_imgs = 25
with h5py.File(sample_path, 'r') as n_file:
    total_imgs = n_file['images'].shape[0]
    read_idxs = slice(0, sample_imgs)
    im_data = n_file['images'][read_idxs]
    im_label = n_file['category'][:][read_idxs]
    label_names = [x.decode() for x in n_file['category_names'][:]]
```

In [9]:

```
fig, m_ax = plt.subplots(5, 5, figsize = (12, 12))
for c_ax, c_label, c_img in zip(m_ax.flatten(), im_label, im_data):
    c_ax.imshow(c_img if c_img.shape[2]==3 else c_img[:,:,0], cmap = 'gray')
    c_ax.axis('off')
    c_ax.set_title(label_names[np.argmax(c_label)])
```


edamame
hamburger
spring_rolls
lobster_bisque
pad_thai
sashimi
club_sandwich
baby_back_ribs
fried_calamari
caprese_salad
apple_pie
fish_and_chips
cheese_plate
frozen_yogurt
onion_rings
ravioli
churros
fried_rice
pad_thai
deviled_eggs
club_sandwich
donuts
chicken_quesadilla
pork_chop
red_velvet_cake

In [14]:

```
from glob import glob
import os
import h5py
import numpy as np
import matplotlib.pyplot as plt

sample_imgs = 25

for c_path in glob(os.path.join(r"D:\Food", 'food_*.h5')):
    with h5py.File(c_path, 'r') as n_file:
        total_imgs = n_file['images'].shape[0]
        read_idxs = slice(0, sample_imgs)
        im_data = n_file['images'][read_idxs]
        im_label = n_file['category'][:][read_idxs]
        label_names = [x.decode() for x in n_file['category_names'][:]]

    fig, m_ax = plt.subplots(5, 5, figsize=(12, 12))
    for c_ax, c_label, c_img in zip(m_ax.flatten(), im_label, im_data):
        c_ax.imshow(c_img if c_img.shape[2] == 3 else c_img[:, :, 0], cmap='gray')
        c_ax.axis('off')
        c_ax.set_title(label_names[np.argmax(c_label)])

    plt.show()  # Add this line to display the plot

    # Save the figure with a unique name based on the H5 file
```

```
26      fig.savefig('overview_{}.png'.format(os.path.basename(c_path)))
```


```
In [ ]:  1
```