Supporting Information

$^1$H and $^{13}$C NMR spectra.
1-Amino-4-chloro-pyridinium iodide 1

\(^1\)H NMR (250 MHz, DMSO-\(d_6\))

Dimethyl 5-chloropyrazolo[1,5-\(a\)]pyridine-2,3-dicarboxylate 2

\(^{13}\)C NMR (101 MHz, DMSO-\(d_6\))
$^1H$ NMR (400 MHz, CDCl$_3$)

$^{13}C$ NMR (101 MHz, CDCl$_3$).
5-Chloro-3-(methoxycarbonyl)pyrazolo[1,5-a]pyridine-2-carboxylic acid 3

$^1$H NMR (400 MHz, CDCl$_3$)

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
Methyl 2-([tert-butoxycarbonyl]amino)-5-chloropyrazolo[1,5-α]pyridine-3-carboxylate 4

$^1$H NMR (400 MHz, CDCl$_3$)

$^{13}$C NMR (101 MHz, CDCl$_3$).
Methyl 2-amino-5-chloropyrazolo[1,5-a]pyridine-3-carboxylate 5

$^1$H NMR (400 MHz, CDCl$_3$)

$^{13}$C NMR (101 MHz, CDCl$_3$).
Methyl 2-(3-benzoylthioureido)-5-chloropyrazolo[1,5-a]pyridine-3-carboxylate 6

$^1$H NMR (400 MHz, CDCl$_3$)

$^{13}$C NMR (101 MHz, CDCl$_3$).
6-Chloro-2-thioxo-2,3-dihydropyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4(1H)-one 7

$^1$H NMR (400 MHz, CDCl$_3$)

$^{13}$C NMR (101 MHz, CDCl$_3$).
6-Chloro-2-(methylthio)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4(3H)-one 8

$^1$H NMR (400 MHz, DMSO-$d_6$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
2-(Methylthio)-4,6-di-p-tolylpyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidine 9

$^1$H NMR (400 MHz, CDCl$_3$).

$^{13}$C NMR (101 MHz, CDCl$_3$).
2-(Methylthio)-6-(p-tolyl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4(3H)-one 10

$^1$H NMR (400 MHz, DMSO-$d_6$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
6-(4-Methoxyphenyl)-2-(methylthio)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4(3H)-one 11

$^1$H NMR (400 MHz, DMSO-$d_6$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
6-(3-Methoxyphenyl)-2-(methylthio)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4(3H)-one 12

$^1$H NMR (400 MHz, DMSO-d$_6$).

$^{13}$C NMR (101 MHz, DMSO-d$_6$).
2-(Methylthio)-6-(naphthalen-2-yl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4(3H)-one 13

$^1$H NMR (400 MHz, DMSO-$d_6$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
6-(4-Fluorophenyl)-2-(methylthio)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4(3H)-one 14

$^1$H NMR (400 MHz, DMSO-$d_6$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
2-(Methylthio)-6-(4-(trifluoromethyl)phenyl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4(3H)-one 15

$^1$H NMR (400 MHz, DMSO-$d_6$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
4-(4-Methoxyphenyl)-2-(methylthio)-6-(p-tolyl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidine 16

\(^1\)H NMR (400 MHz, CDCl\(_3\))

\(^{13}\)C NMR (101 MHz, CDCl\(_3\)).
4-(4-Fluorophenyl)-2-(methylthio)-6-(p-tolyl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidine 17

$^1$H NMR (400 MHz, CDCl$_3$)

$^{13}$C NMR (101 MHz, CDCl$_3$).
4-(6-Methoxypyridin-3-yl)-2-(methylthio)-6-(\(\rho\)-tolyl)pyrido[1',2':1,5]pyrazolo[3,4-\(d\)]pyrimidine 18

\(^1\)H NMR (400 MHz, CDCl\(_3\))

\(^{13}\)C NMR (101 MHz, CDCl\(_3\)).
6-((4-Methoxyphenyl)-2-(methylthio)-4-((p-tolyl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidine 19

$^1$H NMR (400 MHz, CDCl$_3$).

$^{13}$C NMR (101 MHz, CDCl$_3$).
4-(6-(4-Methoxyphenyl)-2-(methylthio)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4-yl)benzonitrile 20

$^1$H NMR (400 MHz, DMSO-$d_6$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
6-(4-Methoxyphenyl)-2-(methylthio)-4-(pyridin-3-yl)pyrido[1',2';1,5]pyrazolo[3,4-d]pyrimidine 21

$^1$H NMR (400 MHz, CDCl$_3$).

$^{13}$C NMR (101 MHz, CDCl$_3$).
4-(4-Methoxyphenyl)-2-(methylthio)-6-(naphthalen-2-yl)-3,4-dihydropyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidine 22

$^1$H NMR (400 MHz, CDCl$_3$).

$^{13}$C NMR (101 MHz, CDCl$_3$).
2-(2-(methylthio)-6-(naphthalen-2-yl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4-yl)benzonitrile 23

\(^1\)H NMR (400 MHz, CDCl\(_3\)).

\(^{13}\)C NMR (101 MHz, CDCl\(_3\)).
2-(Methylthio)-6-{naphthalen-2-yl}-4-{thiophen-2-yl}pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidine 24

$^1$H NMR (400 MHz, CDCl$_3$).

$^{13}$C NMR (101 MHz, CDCl$_3$).
4-(6-(4-fluorophenyl)-2-(methylthio)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-4-yl)benzonitrile 25

$^1$H NMR (400 MHz, DMSO-$d_6$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
2-(4-methoxyphenyl)-4-(6-methoxypyridin-3-yl)-6-(p-tolyl)pyrido[1',2';1,5]pyrazolo[3,4-d]pyrimidine 26

$^1$H NMR (400 MHz, CDCl$_3$).

$^{13}$C NMR (101 MHz, CDCl$_3$).
6-(4-Methoxyphenyl)-2-(6-methylpyridin-3-yl)-4-(p-tolyl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidine 27

$^1$H NMR (400 MHz, CDCl$_3$).

$^{13}$C NMR (101 MHz, DMSO-$d_6$).
4-(4-(4-Methoxyphenyl)-6-(naphthalen-2-yl)pyrido[1',2':1,5]pyrazolo[3,4-d]pyrimidin-2-yl)benzonitrile 28.

$^1$H NMR (250 MHz, DMSO-$d_6$).